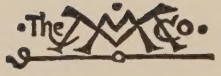
STUDIES IN THE THEORY OF HUMAN SOCIETY



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Studies in the Theory of Human Society

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PREFACE

These consecutive studies are a book of Sociology without the form or the formality of a text. The discursive manner has permitted me to reiterate cardinal ideas and principles, exhibiting them in many lights and relations. I have thought this important in these days of loose thinking on social themes.

The theory of human society into which these ideas are organized is stated in Chapter XVI, as follows:

"If I can be said to have a system of sociology it is briefly this:

"1. A situation or stimulus is reacted to by more than one individual; there is pluralistic as well as singularistic behavior. Pluralistic behavior develops into rivalries, competitions, and conflicts, and also, into agreements, contracts, and collective enterprises. Therefore, social phenomena are products of two variables, namely, situation (in the psychologist's definition of the word) and pluralistic behavior.

"2. When the individuals who participate in pluralistic behavior have become differentiated into behavioristic kinds or types, a consciousness of kind, liking or disliking, approving or disapproving one kind after another, converts gregariousness into a consciously discriminative association, herd habit into society; and society, by a social pressure which sometimes is conscious but more often, perhaps, is unconscious, makes life relatively hard for kinds of character and conduct that are disapproved.

"3. Society organizes itself for collective endeavor and achievement if fundamental similarities of behavior and an awareness of them are extensive enough to maintain social cohesion, while differences of behavior and awareness of them in matters of detail are sufficient to create a division of labor.

"4. In the long run organized society by its approvals and disapprovals, its pressures and achievements, selects and perpetuates

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the types of mind and character that are relatively intelligent, tolerant, and helpful, that exhibit initiative, that bear their share of responsibility, and that effectively play their part in collective enterprise. It selects and perpetuates the adequate."

I have endeavored to bring discussion and exposition to date. The nearly completed first quarter of the Twentieth Century has not been marked by discoveries comparable to those that lifted the second half of the Nineteenth Century above all other years in the history of knowledge; but it has been a time of rectification in science. Logic has abandoned absolutes for variables, and pigeon hole classifications for frequency distributions. Physics and chemistry have begun to build from electrons. Biology has become experimental and Mendelian. Psychology has become experimental and objective. It has discriminated between reflex and conditioning; between original nature and habit. Anthropology has discovered elements of religion older than ghosts, and found more variates of primitive social organization than Morgan and McLennan knew. These corrections of fundamental notions and of inductions that are data of sociology have made the revision of sociology obligatory. I offer here an individual contribution to that formidable undertaking. A large part of the content of the volume is entirely new. Materials that in a cruder form have been printed in various journals and proceedings, and a small portion taken over from *Democracy and Empire* now out of print, have been worked over to the extent of being nearly rewritten.

The chapter on "Order and Possibility" is not strictly a part, but it sets forth prolegomena (as I conceive them) of a scientific theory of human society. Many students of both psychology and sociology continue to worry over "determinism," and in particular over "mechanistic" theories of life. Just what happens to their apprehensions when the discriminations of a statistical way of thinking are applied to them has not, I believe, before been pointed out.

I am grateful to friends and colleagues for helpful criticisms and suggestions; and especially grateful to student members of my research group for untiring aid in "checking up" and "trying out."

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PART I

HISTORICAL

STUDIES IN THE THEORY OF HUMAN SOCIETY

CHAPTER I

THE STRUGGLE FOR HUMAN EXISTENCE

REVOLUTIONIZING as the life work of Charles Darwin was in the fields of biology and psychology, one may doubt if his writings disturbed the intellectual peace anywhere more profoundly than in the already perturbed realms of pre-Darwinian social philosophy. Borrowing a shocking thought from the Rev. Thomas Robert Malthus, Mr. Darwin, in due course of time, gave it back to Malthusians and Godwinites, to Ricardians and Ruskinites, to Benthamites and Owenites, with a new and terrific voltage.

Nine years before *The Origin of Species* was published, Herbert Spencer, in the concluding chapters of *Social Statics,* had offered an explanation of society in terms of a progressive human nature, adapting itself to changing conditions of life. These chapters are the germ of that inclusive conception and theory of evolution which were elaborated in the ten volumes of the *Synthetic Philosophy.* Five years later, or four years before *The Origin of Species* saw the light, Mr. Spencer, in the first edition of his *Principles of Psychology,* set forth an original interpretation of life, including mental and social life, as a correspondence of internal relations to external relations, initiated and directed by the external relations. Finally, in April, 1857, Mr. Spencer published, in *The Westminster Review,* the provocative paper on "Progress: Its Law and Cause," in which a law of evolution was partially formulated, and evolution was declared to be the process of the universe and of all that it contains.

Mr. Spencer thus had seen evolution comprehensively, as adaptation and differentiation. He had not yet mentally grasped the universal redistribution of energy and matter, wherein every finite aggregate of material units, radiating energy into surrounding space, or absorbing energy therefrom, draws itself together in order-making coherence, or distributes itself abroad in riotous disintegration. That universal equilibration, which in fact is the beginning and the end of material transformation, was the aspect of the world which in thought Mr. Spencer arrived at last of all.

It is not given to any one human intellect to discover all truth, and there is more in evolution than even Mr. Spencer perceived, either at the beginning of his great work, or in the fulness of his powers.[1] Intent upon the broader aspects of cosmic change, his mind did not seize upon certain implications of rearrangement. In the concrete world of living organisms, equilibration becomes the relentless struggle for existence, in which the weakest go to the wall. Natural selection follows. It was this intensely concrete aspect that Mr. Darwin saw, and intellectually mastered.

The distinction here indicated between evolution as a universal process, comprehensively described by Spencer, and Darwinism, or Mr. Darwin's account of one vitally important and concrete phase of that process, has often been noted, and is usually observed by careful writers. It is of particular importance in any discussion of social evolution. One cannot hope to get far in a theoretical study of human society if he does not heed the extent to which our explanations of social origins, our philosophies of history and of human institutions, have become not only evolutionist, in the Spencerian sense of the word, but also Darwinian.

It was not until the publication of *The Descent of Man,* in 1871, when controversy over *The Origin of Species* had raged through twelve years of intellectual tempest, that the full significance of natural selection for the doctrine of human progress was apprehended by the scientific world. Mr. Spencer saw it when

[1] And he did not finally reduce his general formula to its lowest terms. As "universal," evolution is but a progressive emergence of order out of turbulence, and therefore a progressive complication of relationships. All other aspects of evolution are particularistic, for example, they are astronomical or biological, or psychological or political, and no two of them are of quite identical pattern.

The Origin of Species appeared. Mr. Darwin himself had perceived that he must offer a credible explanation of the paradox that a ruthless struggle for existence yields the peaceable fruits of righteousness. But it was neither Mr. Spencer, nor Mr. Darwin, who first recognized the specific phase of the life struggle in which the clue to the mystery might be sought. The gifted thinker who made that discovery was Walter Bagehot, editor of the London *Economist,* whose little book on *Physics and Politics or Thoughts on the Application of the Principles of Natural Selection and Inheritance to Political Society,* was published first as a series of articles in *The Fortnightly Review,* beginning in November, 1867. Mr. Darwin rightly calls these articles "remarkable." Revised and put together in book form they made a volume of only two hundred and twenty-three small pages in large type, but no more original, brilliant or, as far as it goes, satisfactory examination of the deeper problems of social causation has ever been offered from that day until now. It anticipated much that is most valuable in later exposition.

In the *Social Statics,* Mr. Spencer had shown that primitive man, subsisting upon inferior species and contending with them for standing room and safety, necessarily developed a human nature adapted to the task of slaughter, cruel, therefore, and unscrupulous; but that triumphant posterity, inheriting a subjugated world, and no longer bound to kill, might become sympathetic enough to cooperate successfully in peaceful activities. The exact relation, however, of this process to group formation or to the collective activity of a cooperating group when formed, Mr. Spencer at this time certainly did not see. For, incredible though it may seem, Mr. Spencer did not at this time so much as make note of the terrific struggles for control of food-getting opportunities that occur among individuals or between groups of the same species, or variety. Conflict among men of the same cultural attainments Mr. Spencer thought of only as prompted by surviving savage instincts, engendered by predatory habits, in the lawless youth of the race.

It was specifically the phenomena of group solidarity and of collective conflict, in distinction from a merely individual struggle for existence, which Mr. Bagehot selected for examination, and

his mind penetrated directly to the essential conditions of the problem. He said:

"The progress of *man* requires the cooperation of *men* for its development. . . . The first principle of the subject is that man can only make progress in 'cooperative groups'; I might say tribes and nations, but I use the less common word because few people would at once see that tribes and nations *are* cooperative groups, and that it is their being so which makes their value; that unless you can make a strong cooperative bond, your society will be conquered and killed out by some other society which has such a bond; and the second principle is that the members of such a group should be similar enough to one another to cooperate easily and readily together. The cooperation in all such cases depends on a *felt union* of heart and spirit; and this is only felt when there is a great degree of real likeness in mind and feeling, however that likeness may have been attained." [1]

Addressing himself to the question how the necessary likeness in mind and feeling is produced, Mr. Bagehot answers: By one of the most terrible tyrannies ever known among men, namely, the authority of customary law; and in accounting for the origin and force of custom, he develops a theory of the function of imitation which anticipates much, but by no means all, of the sociological theory of Gabriel Tarde. Custom, however, tends to create a degree of similarity among social units, and an unchanging way of life, fatal to further progress. To reintroduce and to maintain certain possibilities and tendencies toward variation is, as Bagehot sees the process, one of the chief uses of conflict. Social evolution thus proceeds through the conflict of antagonistic tendencies, on the one hand toward uniformity and solidarity; on the other hand toward variation and individuality. In some groups, one of these tendencies predominates. Contending together, group with group, in the struggle for existence, those groups survive in which the balancing of these tendencies secures the greatest group efficiency. It is not too much to say that in this interpretation, Mr. Bagehot arrived at conclusions which to-day we recognize as belonging to the theoretical core of a scientific sociology.

Mr. Darwin, in those chapters of *The Descent of Man* in which he treats of the origin of social habits and the moral faculties, adopts in substance the conclusions of Mr. Bagehot, and with

[1] *Physics and Politics*, pp. 212, 213.

his keen sense for what is essential, lays emphasis upon four facts, namely: (1) the importance of group or tribal cohesion as a factor of success in intertribal struggle, (2) the importance of sympathy as a factor in group cohesion, (3) the importance of mutual fidelity and unselfish courage, and (4) the great part played by sensitiveness to praise and blame in developing both unselfish courage and fidelity. In terms of these four facts, Mr. Darwin finds an answer to the question, how, within the conditions fixed by a struggle for existence, social and moral qualities could tend slowly to advance and to be diffused throughout the world.

That the studies of both Mr. Bagehot and Mr. Darwin left much still to be said on the subject of group feeling and cooperative solidarity was shown when, in 1890, Prince Peter Alekseevich Kropotkin published in *The Nineteenth Century* his fascinating articles on *Mutual Aid among Animals,* afterwards supplemented by studies of mutual aid among savages and among barbarians. These articles contained nothing essentially new in theory, but they contributed to our knowledge an imposing mass of facts demonstrating how great has been the part played by sympathy and helpfulness in the struggle for existence, and how inadequate would be any interpretation of natural selection which accounted for it wholly in terms of superior strength, cruelty and cunning.

Mr. Darwin never claimed to offer an adequate explanation of the variations which natural selection preserves or rejects. He sometimes took them for granted, he sometimes spoke of them as accidental or fortuitous.[1] He would have been the last to pretend

[1] It was left for the post-Darwinians, and in particular DeVries, to demonstrate the distinction between "mutations" (variations large or small that are inherited) and "fluctuations" (variations large or small that are not inherited) and to apprehend its significance. The fact of mutation (often large and conspicuous); the law of heredity discovered by Mendel; the continuity of germ plasm discontinuous with somatic cells and the fact that traits acquired by an individual after birth do not descend in heredity, established by Weismann; have displaced both the hypothesis of pangenesis and Darwin's view of the transformation of species by cumulative variation; but they have not touched essential Darwinism, namely, recognition of the fact and the function of selective death-rates among mutants. There is no evidence that Malthus saw, or if he saw attached importance to the fact, that death-rates are selective.

that he had told us all that we should like to know about the beginnings of herd habit, of sympathy or of sensitiveness to praise or blame. But, starting from herd habit, sympathy and the desire for approval as traits that may actually be observed, and that presumably have somehow had a natural origin, Darwin and Kropotkin convincingly demonstrate that groups possessing these qualities have a certain advantage in the struggle for life.

To account more fully for the origins, in distinction from the natural selection of the social qualities, was the problem that John Fiske attacked in his theory of the effects of prolonged infancy, first published in the *North American Review* of October, 1873,[1] and a year later in the *Outlines of Cosmic Philosophy*. Fiske discriminates between "gregariousness" and "sociality," without, however, sufficiently analyzing the one or the other, or quite defining the difference.[2] By sociality he seems to mean a relatively high development of sympathy, affection and loyalty to kindred or comrades. He argues that sociality has its origin in small and permanent family groups. These are not necessarily monogamous at first. They may be polygamous or polyandrian, and may broaden out into clans. But they must be more enduring than matings observed in the merely gregarious herd. The cause of both definiteness and permanence he finds in the prolongation of infancy, necessitating a relatively long-continued parental care of offspring. The relations so established among near kindred have conserved and strengthened the feelings of affection and the sense of solidarity. Mr. Darwin recognized Mr. Fiske's theory as an important contribution to the subject. It must be said in criticism, however, that Mr. Fiske did not see all the implications of prolonged infancy, or develop his theory into all its possibilities. Admitting that the prolongation of infancy was probably a factor in the evolution of stable family relationships, and therefore played a part in strengthening the social sentiments, we must remember that the collective life and solidarity of the gregarious group was probably a chief cause of the prolongation of infancy itself. Demanding, as it did, relatively complex habits and ad-

[1] Under the title: *The Progress from Brute to Man.*

[2] Nevertheless, the discrimination is one of the most significant that had so far been made in sociology.

justments, it operated to select for survival those individuals that varied in the direction of high brain power and its correlated long infancy. But this is to say that the collective struggle for existence was a factor in the evolution of man before man became a factor in the evolution of society, and the fact is important.

Moreover, Mr. Fiske's theory no more explained the actual origins of sympathy and cooperation than Bagehot's and Darwin's theories had done. Neither, for that matter, did Sutherland's account of *The Origin and Growth of the Moral Instinct*,[1] although Sutherland got somewhat further back when he called attention to the reaction of parental care of offspring upon the evolution of ganglia making up the sympathetic nervous system.

At this stage the Darwinian interpretation of social origins had arrived when, in 1894, there was published a work which had an almost sensational reception. Hailed as a new gospel by minds desiring above all things to find some solid ground for religious convictions that had seemingly suffered violence in the course of evolutionist warfare, this book was treated by scientific critics with scant respect. The critics, I venture to think, were in error. For, in fact, the *Social Evolution* of Benjamin Kidd raised a profoundly important question, and gave an answer to it which, while half wrong, was probably half right, and the half that was right was a real and important contribution to knowledge. Stated in the fewest possible words, Mr. Kidd's query was this:

Since natural selection saves the few and kills the many, why does not the great majority of mankind try to curb competition and put an end to progress? Thus presented, Mr. Kidd's question is the radical and fearless form of a question which socialism asks in a form that, by comparison, is conservative and half-hearted. And Mr. Kidd's answer, not so much as tainted with socialism, is as fearless as his question. Progress has no rational sanction. It is irrational and, from the standpoint of reason, absurd. Man goes on multiplying, competing, fighting and making progress because he is not rational and has no desire to be. He lives not by

[1] Published in 1898, a worthy product of Australian scholarship, which its author described as largely a detailed expansion of the fourth and fifth chapters of *The Descent of Man.*

reason, but by faith. He crucifies and kills himself to improve the race, not because he is scientific, but because he is religious.

Perhaps it was because Mr. Kidd's thesis was paradoxical, that theologians found something tangible in it while scientific men did not. It should be possible now to look back upon it without prejudice. On the face of it, it is an obvious fallacy, but back of fallacy lies a truth.

The fallacy consists in an unwarranted assumption that individuals and families marked for extermination in the struggle for existence are, in their own lifetime, aware of their impending doom. Let us suppose that, of one hundred families now flourishing, ninety will become extinct in the tenth generation, their places being filled by a corresponding number of new families branching from the one successful line. This would be natural selection at a rapid rate. Yet to maintain this rate, only ten families have to drop out in any one generation, and ten new ones to appear. This means that, at any given time, a ninety per cent. majority of all persons at the moment living have an expectation of further life, the termination of which cannot be foreseen. The large majority, therefore, at any given time existing think of themselves not as the unfit that must perish, but rather as the fit selected to survive.

This way of stating the problem, however, brings us face to face with a peculiarly interesting truth, for the apprehension of which we rightly may give generous credit to Mr. Kidd. Obviously, while no family stock or race at any time existing can certainly know, or, while it remains still vigorous, find sufficient ground to believe that it is doomed to perish, neither can it certainly know that it is indefinitely to survive. It struggles instinctively and it achieves not altogether by knowledge or by reason, but also in part by faith. It impulsively goes forward and it hopes, it expects to endure. It believes in its future.

Therefore the ongoing drive by which a race, a family, or an individual lives, is not anti-rational, nor yet super-rational. It is rather sub-rational or proto-rational. It is deeper and more elemental than reason. It is the will to "carry on" sustained by faith in the possibilities of life. The question, therefore, which Mr. Kidd should have asked, and which we, reviewing his work,

must ask in his stead, is this: May we identify our ongoing will with what men in all lands and times have called "the soul," and merge our elemental faith in the possibilities of life in the tremendous social phenomenon of religion, which, in all the ages of man's progress, has been one of his supreme interests? Shall we perhaps find that, when reduced to its lowest terms, to its essential principle, religion is not, as has been supposed, so much a belief in gods, or in a supernatural, in any way conceived, as an endeavor to sustain and "save" the soul (i. e. to fortify the ongoing will) and to nourish that primordial faith in the possibilities of life which was born, and generation after generation is re-born, of success in the struggle for existence; which may gather about itself all manner of supplementary beliefs, including a belief in spirits and in gods, but which will persist after science has stripped away from it all its mystical and theological accretions? If we may and should, we can accept as a positive contribution to the theory of human behavior Mr. Kidd's proposition that religion, a thing deeper and more elemental than reason, has been a chief factor in social evolution.

The mention of socialism, when referring to the theories of Benjamin Kidd, may serve to remind us of two further contributions to the Darwinian theory of society still to be mentioned. William Hurrell Mallock's American lectures on socialism,[1] did not enhance his reputation as a competent student of social phenomena. Before passing judgment, however, one should examine Mr. Mallock's *Aristocracy and Evolution,* a suggestive and really important work, published in 1898. In this book Mr. Mallock rises above his habit of literary trifling, and digs somewhat below his prejudices, to examine not only fairly, but also cogently, and with illumination, the phenomenon of personal ability as a factor of social achievement. Distinguishing between a struggle for existence merely, and a struggle for domination, he contends that progress in any legitimate sense of the word is attributable to the struggle for domination. No one, I think, can go far in sociological study without seeing that this is a significant distinction for purposes of historical interpretation.

[1] Delivered in 1906; published 1907 as *A Critical Examination of Socialism.*

One need not, however, draw the conclusion that democracy is necessarily antagonistic to progress, as Mr. Mallock does. He says:

> The human race progresses because and when the strongest human powers and the highest human faculties lead it; such powers and faculties are embodied in and monopolized by a minority of exceptional men; these men enable the majority to progress, only on condition that the majority submit themselves to their control.[1]

No student of social evolution would be less likely to dispute these propositions than Francis Galton would be if he were now living. In his studies of natural inheritance and hereditary genius, Galton did more than any investigator before him to establish them on a broad inductive basis. Since Galton, no investigator has made more valuable studies in this field than Karl Pearson, and no one more unreservedly than he accepts the conclusion that superiority is necessary to social advance and that personal superiority is a fact of heredity. Yet Mr. Pearson contends that to add artificial advantage to natural superiority is fatal, because superiority cannot be maintained unless the herd, as well as the superior individual, is carefully looked after and improved. The superiority that achieves leadership and domination is usually the power to do some particular thing exceptionally well. It is extreme individuation, and it often is purchased at the cost of race vitality. It is as necessary to maintain the one as to develop the other. Mr. Pearson therefore finds the socialistic program not incompatible with continuing progress by selection and inheritance.[2]

> "To 'wage war against natural inequality' is clearly a *reductio ad absurdum* of the socialistic doctrine. So far as I understand the views of the more active socialists of to-day, they fully recognize that the better posts, the more lucrative and comfortable berths, must always go to the more efficient and more productive workers, and that it is for the welfare of society that it should be so. Socialists, however, propose to limit within healthy bounds the rewards of natural superiority and the advantages of *artificial* inequality. The victory of the more capable, or the more fortunate, must not involve such a defeat of the less capable,

[1] *Aristocracy and Evolution,* p. 379.

[2] *The Chances of Death,* Vol. I., pp. 112, 113. Rejecting socialism myself and defending a creed of socialized individualism, I have thought it worth while to quote the exact words in which Mr. Pearson summarized his argument.

or the less fortunate, that social stability is endangered by the misery produced. At the present time a failure of the harvest in Russia and America simultaneously, or a war with a first-class European power, would probably break up our social system altogether. We should be crushed in the extra-group struggle for existence, because we have given too much play to intra-group competition, because we have proceeded on the assumption that it is better to have a few prize cattle among innumerable lean kine than a decently-bred and properly-fed herd with no expectations at Smithfield."

From this too brief account of the applications thus far made of Darwinian theory to the problems presented by social relationships, including human institutions, we may turn to the question of further scientific possibilities in this direction. It will have been noted that the theories reviewed are not as they now stand entirely consistent with one another, and that none of them carries explanation back to the actual beginnings and causes of group formation. Perhaps if we could more adequately account, in terms of the struggle for existence, for actual social origins, and for successive stages of social evolution, the various fragments of theory which we now possess would fall into orderly correlation.

Possibly also the most promising starting point for any new attempt to achieve these ends may be found in a careful scrutiny of what is involved in the struggle for existence itself. Close readers of *The Origin of Species* know that although Mr. Darwin, when employing the phrase "a struggle for existence," usually meant by it a struggle for subsistence, he uses it also to mean a struggle with the physical conditions of life, to which an organism that would survive must be or must become adapted. "Two canine animals in a time of dearth," he remarks, "may truly be said to struggle with each other which shall get food and live. But a plant on the edge of a desert is said to struggle for life against the drought, though more properly it should be said to be dependent on the moisture." [1] Also, "climate plays an important part in determining the average numbers of a species, and periodical seasons of extreme cold or drought seem to be the most effective of all checks." [2] Yet further, "when we reach the Arctic regions, or snow capped summits, or absolute deserts, the struggle

[1] *The Origin of Species*, p. 78.
[2] *Ibid.*, p. 84.

for life is almost exclusively with the elements." [1] Again, Mr. Darwin often means, not a struggle for food or against the elements, but a struggle to avoid being converted into food. "Very frequently," he writes, "it is not the obtaining of food, but the serving as prey to other animals, which determines the average numbers of a species." [2] And some of his most fascinating pages deal with the variations, such as protective markings, colorings and habits, which are helpful in the mere struggle for safety. Once more, in those paragraphs in *The Descent of Man* already referred to, in which Mr. Darwin recognizes the utility of group solidarity, he, by implication, takes account of a struggle on the part of associating individuals to adjust their interests and their activities to one another in such wise that group life may be maintained.

If, then, it is legitimate to use the term, "struggle for existence," "in a large and metaphorical sense," as Mr. Darwin says his practice is,[3] the struggle itself obviously consists of four distinct and specific struggles, namely: (1) *the struggle to react,* to endure heat and cold and storm, to draw the next breath, to crawl the next yard, to hold out against fatigue and despair, to explore and analyze the situation; (2) *the struggle for subsistence* wherewith to repair the waste of reaction; (3) *the struggle for adaptation* by every organism to the objective conditions of its life, and, (4) *the struggle for adjustment,* by group-living individuals to one another.

And this large use of the term is legitimate in fact. Mr. Darwin's only mistake was in calling it "metaphorical." For, as Karl Pearson has pointed out, "the true measure of natural selection is a selective death rate," [4] and any circumstance, whether it be danger, or scarcity of food, or non-adaptation to physical conditions, or mal-adjustment of associating individuals to one another, which affects the selective death rate, is a factor in the struggle for existence.

If so much be granted, a number of difficult questions get a real

[1] *The Origin of Species,* p. 85.
[2] *Ibid.,* p. 84.
[3] *Ibid.,* p. 78.
[4] Essay on "Reproductive Selection" in *The Chances of Death and Other Studies in Evolution,* Vol. I, p. 63.

illumination. What are the true relations of religious, æsthetic, intellectual, economic, ethical and social phenomena to one another, and to life in its wide inclusiveness? What, especially, is the precise point of departure of social evolution from all that precedes it and prepares for it? And what is the precise discrimination needful of things social from things merely organic or psychological? The modes and the phases of the struggle for existence suggest intelligible answers.

The struggle to endure and, withstanding fatigue, to go on, to keep up courage and to maintain faith, develops into religion. It avails, however, only if sensitiveness to situation warns of danger, and reaction to peril achieves safety. Sensitiveness to electrical and chemical conditions, to temperature, pressure and sound, to light and shade, to color and form (in all their objective degrees and proportions, dissonances and harmonies) and alert reaction to them, are the beginnings of æsthetic interest and discrimination, which, therefore, it seems, are vital concerns; not triflings with life, as stupid people assume. They are the unwearying guardians of immediate safety. For assurance of safety or continuing security, yet other reactions are necessary. There must be an exploration of each situation and an analysis of it. This is an intellectual business, an affair of ideas and of thought processes, for which only man is competent. His attempt to develop it is his scientific life.

Religion, then, the æsthetic life and the scientific life, are initial products of the struggle to react, to hold out and to go on.

The struggle for subsistence initiates and broadens into the economic life. The struggle for adaptation becomes the ethical life. For adaptation, in its beginnings a mere taking on or perfecting of useful characters, develops, in time, into self-control, self-direction and self-shaping.

Between adaptation and adjustment, no distinction whatever has been made by a majority of evolutionist writers. Spencer uses the word "adjustment" to include all that biologists and psychologists commonly mean by adaptation. Yet the two things are not at all the same. The struggles which they involve are not identical struggles, and, for the purposes of sociological theory, the distinction is of fundamental importance.

Adaptation—which, as it goes on, widens into and includes the ethical life, at first is a mere conforming of the organism through variation, selection and inheritance, to the physical conditions under which it happens to live; that is to say, to altitude, temperature, light or darkness, dryness or moisture, enemies, food supply, and so on. Through adaptation, and because non-adaptation means extinction, the individuals of any given species congregated and dwelling in any given region where adequate food supplies are found become increasingly alike, and the first two conditions of social life, as Mr. Bagehot rightly explained it, namely, grouping and substantial resemblance, are provided. But, since they are alike, individuals of the same variety or race, so brought together in one habitat, necessarily want the same things, and, as often as not, try in like ways to get them, reacting in one manner to any stimulus that incites all of them, or to a common situation. They compete in obtaining things which each is able to get by his own efforts, or (unconsciously or consciously) they combine their efforts to obtain things that no one could get unaided. In either case their interests and activities are not altogether harmonious and easily become antagonistic. Competition tends to engender conflicts inimical to group cohesion; but in aggregations of animals or of human beings, in which individuals generally are substantially similar in behavior and approximately equal in strength, conflicts are self-limiting in a degree. An equilibrium of "live and let live" is arrived at, which makes gregarious life possible for animals and conscious association possible for human beings. In human communities the let live habit of noninterference becomes a conscious toleration, in which adaptation passes into adjustment, a reciprocal adaptation. It is a precarious adjustment at first, because rivalries continue and conflicts recur. When, however, these provoke collective (i. e. group) reactions in defense of the let live status, the struggle then begun is a struggle to maintain adjustment and to improve it. On its success group cohesion depends, and on group cohesion social evolution depends.

Or, to put the matter now in slightly different words, while the struggle to react with ongoing will and discriminating intelligence becomes differentiated into religious, æsthetic and scientific activities; and while the struggle for subsistence becomes the

economic life, and the struggle for adaptation broadens into the ethical life, the struggle of resembling creatures to adjust themselves (together with their competitions and their adaptations) to one another, is the beginning and the continuing process of group cohesion, the precedent condition of human society and all that it signifies.

Through success in all of these struggles, and not in one or another of them only, there results a survival of the fit, namely, organisms that are so equipped with proper parts and habits that on the whole they fit into and conform to the essential conditions of life incident to the environment in which they are forced or elect to dwell.

Only a few of the countless billions of the fit are human, and human beings are not in all cases the fit. There are regions and circumstances in which man is unfit to live, and doesn't.

Human qualities have been winnowed and selected in a differential struggle, projected from and beyond the general struggle for existence. They are products of a highly definite and intense struggle for *human* existence.

This struggle has been not only a collective effort, as the life struggle of all gregarious creatures is, but also a *social* struggle—another phenomenon altogether.

Pluralistically responding (i. e. in plural numbers reacting) to common stimulation, communicating and associating, acting upon one another by suggestion and example, and imitating one another in a thousand ways, individuals generate similar feelings and develop closely resembling ideas. Among them are feelings and ideas of liking and disliking, of trust and distrust, of approval and disapproval. These are social feelings and ideas, a human equipment not found full grown, if indeed in rudimentary beginnings, in the animal mind. Also an awareness of similarities of behavior and of character (and of conflicting dissimilarities) becomes a consciousness of kind, or type. Social feelings and ideas, (emotions and thoughts) and the consciousness of kind fuse in a conscious social sentiment, a state of the human mind, to which gregarious instinct (if there is a gregarious instinct) is but a small contribution. Social sentiment converts herd habits into those common and usual but not invariable ways of doing things,

those norms and elements of human custom, which Professor Sumner has named the folkways.

Folkways and mores constrain the individual and become that "most terrible of all tyrannies known to man" of which Mr. Bagehot wrote. But it is a tyranny, as Bagehot demonstrated, that perfects the group in cohesion and in unity of purpose. Conscious, then, of the usefulness of solidarity, the group endeavors by definite policies to limit variation from type. Society thereby becomes a type-conforming group of associates, endeavoring, by self-instituted discipline to maintain as a type its distinctive characteristics. Chief of selected and perpetuated traits are the differential human reactions; conscious toleration, conscious sympathy, and an intellectualized understanding.

In the three next following chapters fundamental conditions and elemental processes of the struggle for human existence are examined in further detail. The historic process as a whole is then viewed comprehensively, and afterwards an attempt is made to discover and to connect the historical factors of social theory. The chapters of the second part of the volume are analytical studies of determinative factors and controlling processes in human society. In the third part an attempt is made to exhibit their genetic and functional synthesis.

CHAPTER II

THE SIGNIFICANCE OF CULTURE

It would help to clear up those issues which have been brought forward by the economic interpretation of history, if scholars generally understood the true character of certain human interests which we are in the habit of grouping under the word "culture." To the historian who comprehends the part which religion and language, manners and amusements, art and literature have played in the drama of human progress, there is something almost perverse in the proposition that all which has happened in the world can be explained in economic terms. Not only does economic explanation in history savor of materialism in that sense of the word which is ethical rather than scientific, but it seems to be wholly inadequate.

Yet the question raised, as all will admit, is perplexing. The word "economy" has become one of the most elastic in the vocabulary of science. It means the whole system of industry and business whereby a modern population sustains existence. It means the production and distribution of wealth. It also means the total phenomena of wants and satisfactions. Whenever the economist, turned historian, discovers that he cannot account for a social development in terms of property or of industrial organization or of "the iron law," he falls back on the most abstract meaning of his words, and has no difficulty in proving that since all the forms of culture are satisfactions of wants, they are economic phenomena. He might demonstrate also that they are cosmic phenomena, and the one "interpretation" would be as illuminating as the other. Admitting that cultural products are both cosmic and economic, our common sense assures us that they are distinguishable from undifferentiated comet tails, and that it would be interesting to know wherein their economic nature differs from that of stock yards and rolling mills. The crux of

the whole question is right here. Are the facts of culture economic in some precise sense, as the facts of industry are? Is culture in general *an economy,*—of a different order from the economy called industry; and if so, which economy is radical, or primordial? Is culture an offshoot of industry, or has industry been evolved from culture; or are there two economies, independent and coordinate from the beginning? These questions cannot be answered by scientific intuition.

On the one hand we know that in modern life churches and theatres, clubs and "society" are maintained from the products of iron and cotton mills, coal mines and oil wells, wheat fields and lumber camps. On the other hand, we know that the Ingævones and Herminones, whom Tacitus described, had neither mills nor mines, nor much cultivated grain, nor marts, and yet they had religion and a splendid mythology, choral song, and social festivals. Historically, culture had a vast development before industry got beyond its rudest beginnings. Industry, however, supplies us with material goods, food, clothing and shelter, which minister to those bodily needs that are older than the cravings of the mind. Moreover savages and barbarians have had practical as well as ceremonial arts. As a rule (but not always) they have obtained something to eat before devoting themselves to tom-toms and prayer. Altogether, antecedent and consequent in our investigation seem to be mixed.

In the attempt to get them into a genetic order let us first carefully recognize facts that are beyond argument. It is by directing human labor and by controlling the processes of nature that modern industry creates vast quantities of goods, including food supplies in excess of what nature offers freely in unsolicited bounty. In achieving this end modern industry is dependent upon man's acquisitions of scientific knowledge and technical skill. Knowledge and skill have had beginning and growth in man's ceaseless interrogation of nature through unnumbered generations, and in his attempt to imitate her ways. These questionings and imitations lead back into a maze of religious ceremonies and beliefs, back through the world of ghosts to an earlier world of mana, then further back to those earliest forms of expression and of mimicry, of which language and manners were born, and at last to

those primordial reactions of which adventure, fortitude and faith were born. Modern industry, then, presupposes among its antecedents the whole cultural history of man considered as a mental preparation for his present task.

This, however, is not all. Industry presupposes certain motives for productive effort, and these are more than pangs of hunger and cold. They include not only the demand of the body for nourishment and protection, but also the demand of body and of mind for exhilarating activity; for stimulation and exaltation; for the pleasures of sight and of sound, of imagination and of sentiment, and for the deeper satisfactions of understanding. In their turn all these satisfactions are concretely embodied in cultural forms handed down to us from the past. On the side of motive also, therefore, modern industry presupposes the long historical evolution of culture.

Thus, indirectly at least, culture has an economic function. As motive and means—a necessary antecedent of the whole industrial scheme of the modern world—it must be recognized among economic causes. Has it, then, or has it had in the past an economic function more immediate, an economic character less disguised? Did it originate in economic effort? As a product of evolution it must be regarded as in some way related to the struggle for existence. Did it grow and differentiate because it contributed in a practical way to life maintenance, or only because it happened to be correlated with useful activities, and fortunately added something to the variety and interest of an existence which it had no power to sustain?

The answer to this question is not doubtful. In its earliest forms culture is an *economy;* a practical, utilitarian thing. Only in its late developments does it become a diversion. To the primitive man culture in general, like music or dancing in particular, is a serious business.

Bird and beast subsist on what they find. They are not, however, helpless creatures of a strictly fatalistic luck. Their reflex and instinct mechanisms serve them well. Without comprehension they strive, and without thought they discriminate. Their cries and gestures, by-products of zeal and alarm, proclaim discoveries, warn of dangers, stimulate or depress. Also, through

beating the air and the bush in a random trial of this and that which results now in failure and now in accidental success, they recondition their instincts. They learn, and acquire habits. They practice cautious approaches and unhesitating avoidances. They learn concrete good and evil, what things and powers revive and comfort them, what hurt and incapacitate them. Out of approaches and avoidances they develop play habits of mimicry, which like cries and gestures serve them by way of self-stimulation and exhilaration. These first acquisitions (not known by their beneficiaries to be such) are the rudiments of culture.

Primitive man develops articulate sounds into predicative discourse, the indispensable means of communication in the higher forms of aggressive and defensive cooperation. He develops address and reply, approach and avoidance into manners. Approaches he develops into contacts and alliances through which he "gets power" (mana) and so into totemism. Avoidances he develops into taboos, interposed between himself and evil. Mimicry he develops into dance and song, and for ages the supreme purpose for which he cultivates these arts is to stimulate himself to moods of "power" and then by stimulating to enchant the realms of plant and animal life. Presently out of such enchantments as are practiced by the native Australians whereby those children of nature believe that they multiply the witchetty grubs on which their uncertain life depends, and such initiation ceremonies as those of the "white clay men" (the Titanes) of ancient Crete, he develops drama and myth. Out of mimicries also he creates technical arts of carving and drawing, of weaving and building. Everything that he does, and worship above all, is with practical intent. Whether thinking of natural processes in terms of impersonal mana he piles his altars with rice or with maize and sprinkles them with water to bring down saving rain, or, at a later time, having peopled the world with ghosts and then with personal gods of ghost extraction he prays and propitiates, his worship is as purely economic in motive as is that of the modern man of affairs who puts his contribution into the plate to fortify his credit at the bank. Casting bread upon the waters is an old practice, in which worship and economy are as one.

Nor was this ceremonial economy of primitive man as ridicu-

lously idle as the modern skeptic may imagine. It did in fact very greatly contribute to economic security. The effect of taboo was to preserve multitudes of plant and animal species from indiscriminate destruction, and, what was equally important, to compel men, forbidden to subsist on this and that, to seek other food supplies and thus to diversify consumption. The significance of this latter fact will again be referred to later on.

And even where mere mimicry and supplication failed to extort from nature that which she yields only to patient industry directed by scientific knowledge, they increased man's well-being in another way. Differentiated into a thousand modes of picturesque and enlivening activity, they became habits which man has continued to cherish for the immediate pleasure which they afford. They multiplied his interests, expanded his ideas, disciplined his mind. They provided immediate satisfactions, and continued to provide them for all those human needs which are not merely material; while, at the same time, taboo and ceremony contributed to his material security.

Whatever, then, culture may be today, it has been in its time an economic system, as truly as industry is now. It was the economy of primitive man. It was the first means of differentiating and of protecting the food supply, and it was the first means of differentiating the immaterial needs, thereby enormously broadening economic demand, and strengthening economic motive. Yet it was a radically different economy from that which now maintains the enormous population of the world. In the hope of discovering the scientific aspect of the difference, let us submit the bare outline of facts, which has thus far been given, to a more precise analysis.

In a following chapter, on "The Economic Ages," in which I shall pay a more adequate attention to the psychological character of phenomena that I am here but superficially describing, I shall suggest reasons for recognizing four stages of economic development, namely, an organic, an instinctive and habitistic, an apprehensive, an ascertaining. The economy of plant life is organic only. The economy of animal life is organic, instinctive and habitistic. The economy of human life is organic, instinctive and habitistic, apprehending and credulous, and ascertaining. Man

alone systematically attempts to improve his condition. His first experiments, however, directed by naive conceptions of nature, are with the arts of enchantment and propitiation: his apprehensive economy is ceremonial. Not until late in his career does he become a systematic worker and develop a verifiable business economy.

The organic, the instinctive and the ceremonial economies have an essential something in common which marks them off from modern industry, and which makes their phenomena the subject matter of one grand division of economic science, while the business phenomena of industry belong to another grand division. If this distinction can be made clear, the true significance of culture as a preliminary economy, and the antecedence of cultural phenomena to nearly everything which we nowadays call economics, will be established.

We must begin with a brief reference to phenomena of wants and satisfactions, which are the data of all economic theory. The need for food is so far from being the only original want that in fact it is coordinate with demands equally imperative, no one of which, taken by itself, is antecedent to another. Life would perish as quickly if the energies which are evolved by the assimilation of food could not normally be expended, as it would through starvation. Expenditure in cell division and reproduction is the universal mode, and it results in that multiplicity of organisms which conditions the life struggle for each one. It is supplemented in the animal creation by motor activities, and these, in the higher species, are differentiated in endless complications through their correlation with a developed nervous system. All of these activities of body and mind as they appear are enlisted in the food quest, in the phenomena of reproduction and race maintenance, and, finally, in determining the relations of organisms to one another. Again, each mode of activity, once established, creates a continuing demand in the organism for the further enjoyment of such expenditures of energy. Accustomed to the chase, beast or man suffers miseries if deprived of freedom. Accustomed to the functions of race maintenance, the organism that is deprived of offspring finds the pleasures of its own existence largely curtailed. Long used to the presence of fellow creatures

and to activities of antagonism or of sympathy, the individual in isolation begins to perish, as surely as if he were deprived of food. Finally, every activity of the mind in its questioning of nature, and in its practical efforts to ameliorate the conditions of life, creates a craving for its own renewal.

As rapidly as activities are differentiated, the need for discharge of energy in each new channel becomes a demand for a particular class of satisfactions, which must not be confused with the final satisfaction of actual expenditure any more than food is mistaken for the pleasure of consuming it. Food is a preliminary or mediate satisfaction. Means are necessary also to the end—pleasurable activity. In general they may be described as stimuli. For the pleasures of the chase the stimuli of forest and game are needed. For the active pleasures that young creatures have in the antics of play they need the stimulus of one another's presence. For all of the lighter pleasures of intellectual activity we need the stimulus of fellow minds. For a major part of our happiest emotional activity we need the stimulus afforded by the presence of those who, through long association with us, have become objects of attachment. In highly evolved societies the stimuli of intellectual and emotional activity have become innumerable, and to provide them is as much a part of man's foresight as to provide for the production of energy and its conservation by food, clothing and shelter.

The original wants of an organism, then, are those of energy-supplying substance, and of stimuli provocative of energy discharge. The wants of the former class can be differentiated to a very slight extent only. Those of the latter class can be varied indefinitely. The multiplication of wants and of satisfactions is mainly a multiplication of activities and of stimuli.

How are the satisfactions of each class provided? There is a large number of life-sustaining substances, and there are many stimuli of activity, which not only are not produced by industry, but which are not even obtained through intent, or by effort. They are put in the way of the creatures that enjoy them, and are absorbed or reacted upon as a matter of course. The lowest organisms are wholly dependent upon such resources, and the highest, including human beings, are still dependent upon them

largely. Sunshine and air we accept without a thought of what it would mean to have to get them by effort. The infinitely varied stimuli which create our pleasurable sensations in the presence of nature, and the ideas of nature that are slowly organized in scientific knowledge, are all a part of nature's unsolicited bounty. The economy which utilizes them is purely biological and psychological, but it may be of any stage, from the merely organic economy to the rational.

By the normal evolution of the organism further objective satisfactions, belonging to the class stimuli, are provided; in the lower forms of life without conscious effort, but among human beings with more or less of forethought, and at much cost in economic sacrifice. These are offspring and fellow-beings, with all their potentialities of sympathy and of rivalry, of social intercourse and of cooperation.

A third mass of satisfactions is obtained through a measure of effort, which, however, consists simply in finding and taking possession of what nature provides. It is made up of those food supplies that are the dependence of most of the higher animals and of primitive man, and of various materials which both animals and men use for nests or shelter, and men for clothing. To a much greater extent than we realize the human race still subsists by foraging rather than by producing. We consume great quantities of wild fruits and of game, of medicinal barks and herbs, of furs and feathers which are merely gathered, and are not increased in supply by any process of breeding or cultivating. In a large measure our so-called extractive industries are merely survivals of a primitive foraging economy. Lumbering by the usual wasteful methods is a conspicuous example of it.

There is a fourth array of satisfactions, consisting substantially of stimuli of bodily and mental activities, intellectual and emotional, which are enjoyed only by man, and the origins of which we have been describing. All have sprung from instinctive reactions, mimetic habits, approaches and avoidances. Originally developed with practical intent, they become important to man for the sustenance of mind and soul rather than of body. Language and manners, worship and amusements, plastic and poetic arts,—these involve productive intent and effort, and in the beginning

they are regarded as productive means, as truly as capital is in modern days. Nevertheless, they are in reality productive of subjective satisfactions, rather than of material goods, and so are not properly to be classed as agents of a productive economy.

The fifth and final array of satisfactions is that which is created by modern productive industry. It comprises the great bulk of our food supplies, and of our clothing, comforts and luxuries; and their creation involves the production also of great quantities of auxiliary goods, including tools and machinery and means of transportation.

All of these satisfactions save those of the last division named, are an inheritance from an almost immeasurable past. Are there any categories of economic science which apply to the products of that "preliminary age," as Bagehot called it, no less than to the wealth of our modern world? The answer has already been given by implication in what has been said of the functions of reproduction and of culture in differentiating both wants and their satisfactions. The numerical increase of a species raises the life of each individual to a higher power by multiplying a thousand fold the stimuli of activity. Cultural products raise it to yet higher powers both by diversifying its material basis of subsistence, and by almost infinitely multiplying its interests.

Now just to the extent that men have a wide variety of material satisfactions, and that their interests are multiplied by innumerable stimuli of activity, they have a relatively high standard of living. That the standard of living is a complex of cultural facts hardly needs demonstration. What men desire and expect in life is an epitome of their race history in social intercourse, manners, art, amusements and religion. Here, then, in identifying the preliminary economies with the evolution of a standard of living we bring them within the scope of familiar economic concepts. A phenomenon of the diversification of wants and satisfactions, the standard of living is a fact not of production primarily, but of consumption. Thus we arrive at the broad economic significance of culture. The evolution of culture is the evolution of a consumption economy.[1]

[1] I take the phrase from Simon N. Patten, but he must not be held responsible for the uses that I make of it.

The classical economists recognized a department of their science which they called the consumption of wealth; but they never knew what to make of it. Accepting the self-luminous proposition that wealth cannot be consumed until it is obtained, they touch upon consumption, if at all, at the end of their exposition, and only so far as to show how the consumption of wealth reacts upon its increase. This fact ought to have disclosed to them the causal relation of consumption to production. Jevons and the Austrian writers perceived the psychological aspect of it, and by deriving from the facts of consumption the marginal theory of utility and of value, they restated economic theory. Marshall, broadening the treatment, identified the theory of consumption with the theory of demand, and placed it before the theory of supply, that is, of production.

The whole truth of the matter, however, is that the phenomena of consumption are not only psychologically antecedent to the phenomena of production, as motive to deed, but, as we have seen, they are also historically antecedent. For ages there was consumption before there was any production, and without grasping that fact man's economic and social history is not to be understood. Like the lower animals he depended for supplies upon the proffered bounty of nature. His only business was to consume what she gave. His ideas and habits of consumption, therefore, were his original economy. There was, in short, a consumption economy long before there was a production economy.

And that is not all. When man became convinced that he must do something to increase the supplies that nature offered, he knew nothing of industrial methods. He did not even suspect the importance of differentiating his consumption. But through avoidance and taboo, and by trying through magical stimulation and religious ceremony to wheedle food from the powers of earth and air, he did vary his consumption in fact, and differentiation once begun was bound to continue until it became a great multiplication of wants. The immediate effect of differentiation was to establish a conservative and relatively advantageous use of the environment. Here again history confirms theory. Economists recognize the indebtedness of their science to Patten's studies of the relation

of a diversified consumption to marginal utility and to the total supply of goods. Diversified consumption does not soon encounter diminishing returns. It is the simplest way to ameliorate economic conditions, and it was the primitive way.

Differentiation begins with the multiplication of organisms and the evolution of their relations to one another. It begins, in short, in the needs and satisfactions of collective life. In relations with offspring and other fellow-creatures we have the first new forms of energy-expenditure which have been referred to as correlative with the need for energy-supplying substances. In the relation of the individual to his fellows we have the stimuli which first expand his consumption.

From pluralistic behavior and relations are presently developed the things of culture; from language, manners and religion to the arts of expression and of utility. Culture in turn, in its economic aspect, is nothing more nor less than the diversification of consumption. It is the expansion and perfection of the consumption economy.

But we have not yet exhausted the possibilities of the consumption economy so nearly identical with culture. It is through the diversification of consumption that man passes over into a production economy, and it is in the standard of living, created and measured by the diversification of culture, that we have the efficient cause of the modern production of wealth.

Through using a large number of nature's freely offered goods in new and varied ways, man slowly discerns the possibilities that lie in the cultivation of roots and grains, the breeding of animals, the development of instinctive arts into rude manufactures, and finally exchange. Perhaps we cannot trace all the steps by which magical mummeries became agriculture and herding, and imitations of natural objects for purposes of incantation or enchantment became practical utensils or beautiful adornments, but there is no doubt that for ages the practical was not yet separated from the ceremonial. And without attempting to explain just how exchange began, we can say that one of its earliest forms was a give and take between the community and its unseen powers. The ceremonial rites of magic and religion offer services and gifts, and man expects to be rewarded for them by a relative abundance.

This exchange has in it also the germ of the idea of capital. Closely connected with such ceremonies are those of propitiation between man and man, whereby the various products found in the foraging of many individuals, families and hordes, being ceremonially passed from one to another, in the course of time are passed for the sake of a varied consumption, until the whole affair becomes a trade, and exchange is seen to be a means of producing a greater sum total of satisfactions.

In the question whether the standard of living determines industrial production, or industrial production determines the standard of living, we come back to close quarters with the whole issue over the economic interpretation of history. If the standard of living determines production, then the "interpretation of history" runs back into that early economy which survives as culture. Men cannot have more to eat and to wear, or better houses or bigger churches, or handsomer theatres and clubs, or choicer books and pictures, or indulge in more music or travel than they can produce or find the means to pay for; but neither can they produce given quantities of these things unless they desire them strongly enough to put forth necessary exertion, to make necessary sacrifices, to undergo miscellaneous hardships, and to keep their minds alert enough to bring them all to completion. In a word, the standard of living is not the sum and substance of what a population actually has. It is literally what the word means—the standard, the ideal of comfort and luxury which a class or people is striving to realize; not its day-dream of what some fairy godmother might provide, but its sober estimate of what it believes to be possible, and is determined by all reasonable effort to try to secure. So defined and understood, the standard of living is beyond question the cause and not the effect of production.

We may now summarize our results to this point. The organic, instinctive and ceremonial economies, of the world of vegetation, of animal life and of primitive man, are all parts of a consumption economy which is antecedent historically as well as psychologically to the production economy of the modern world. The consumption economy increases well-being not by producing goods through cultivation, breeding or manufacture, but by so

diversifying wants and satisfactions that the adaptation of organism and environment is wider in its basis and more stable than it can be when consumption is simple. The diversification of wants and satisfactions begins in the multiplication of organisms through reproduction, and in the evolution of pluralistic relations. It is continued and perfected by the evolution of culture. The consumption economy, by thus determining habits and motives, creates the standard of living, and the standard of living in turn, when mental evolution has achieved the transition to a productive economy, determines the extent of wealth production.

Certain further facts may now be conceded, and we are then in a position to comprehend the full economic significance of culture, because the successive steps of economic causation in history will appear in their genetic order. Accepting as true that theory of distribution which accounts for the share of each productive factor by its marginal productivity, and, in like manner, for the share of each component part of a productive factor,—for example, a particular group of laborers,—it is clear that the social distribution of wealth is determined by the productive power of the various groups and classes in the population. This productive power is in turn determined, so far as causation lies in motive, by the standard of living of the producing groups, and so far as it lies in ability, by their bodily power, moral equipment, mental discipline and acquisitions. Normally these factors are correlated, and all in a large sense are products of culture. They are, in a word, the cultural equipment of the respective groups. Chiefly important is the extent to which primitive conceptions have been superseded by scientific knowledge.

The social distribution of wealth, it may be admitted, is a true cause of changes in mores and in law, while these in turn, involving as they do conceptions of rights and liberties, are true causes of changes in political organization and policy.

Therefore, still more briefly stated, our conclusion is: A consumption economy, the chief factors in which are pluralistic relations and their great objective product, culture, creates presently a productive economy and the beginnings of law and government, and it continues to determine the scope of the productive economy, while the latter, once in full operation, determines the

further evolution of law and politics. Let us then have as much economic interpretation of history as the facts can be made to yield, provided that we know what we are talking about. An interpretation in terms of those ideas and practices which are the subject-matter of economic science, as the term is ordinarily understood, will carry us but a very little way. To get back to the beginnings of the historical process and to true causes, we must go deep into the origins of the consumption economy and follow its evolution through the unfolding of culture.

CHAPTER III

THE ECONOMIC AGES

In those pleasantly discursive writings which Alfred Russell Wallace in advancing years brought together in the volumes entitled *Studies Scientific and Social,* and which include, with discussions geological, biological and anthropological, other discussions that are economic, political and educational, the reader finds a chapter described by the headline, "The Problem of Utility." Naturally, if he is familiar with those developments of economic theory which interested us in the last quarter of the nineteenth century, he will assume that the great English evolutionist, who shares with Darwin the honor of having discovered the process of organic evolution by natural selection, found time to give attention to the abstruse problems associated with the names of Cournot, Menger, Jevons, Walras, Von Wieser and J. B. Clark. Upon turning, however, from the table of contents to Chapter XVIII itself, one discovers that it is further described by the question, "Are Specific Characters always or generally Useful?" and by the following quotation from an article which Mr. Wallace published as early as 1867:

> Perhaps no principle has ever been announced so fertile in results as that which Mr. Darwin so earnestly impresses upon us, and which is indeed a necessary deduction from the theory of natural selection, namely, that none of the definite facts of organic nature, no special organ, no characteristic form or marking, no peculiarities of instinct or of habit, no relations between species or between groups of species, can exist but which must now be, or once have been, *useful* to the individuals or races which possess them.

The principle thus described Mr. Wallace called "The Principle of Utility." As thus employed, the phrase sounded strange to ears that had grown familiar with such locutions as "final degree of utility," "marginal utility" and "subjective utility." The late

nineteenth century economist had ceased to think of utility apart from the psychological facts of want and satisfaction. Yet none would deny that Mr. Wallace's employment of the word was an old and common one. Moreover, it would not be inconsistent with one definition given by Jevons—namely, "a *circumstance of things* arising out of their relation to man's requirements" [1]—if for the phrase "man's requirements" we might substitute the words "the requirements of a living organism." Such a substitution, however, would distort Jevons's conception and that of the whole school of writers to which he belonged. For Jevons elsewhere says: "Whatever can produce pleasure or prevent pain may possess utility." It is by the latter definition that we should interpret his phrase "man's requirements." In the last analysis, according to an economic calculus, man's requirements are the diminution of pain and the increase of pleasure.

Thus, plainly there were and are two distinct notions of utility: one a concept of utility as objective, which plays a large part in the theory of biological evolution; the other a concept of utility as subjective, which became and will remain an important factor in economic theory. Utility objective is a circumstance of things arising out of their relations to organic life. It is a realized capacity to maintain life or to develop it, and the life so served may be conscious or unconscious, animal or only vegetal. Utility subjective is a pleasure-producing or a pain-preventing circumstance of things, itself varying with a state of mind—want or satiety—and consciously known or recognized as a cause of conscious satisfaction.

Not only in their employment of this somewhat technical word "utility" do the biologists and the economists reveal an interesting divergence of thought, but also, as was intimated in Chapter II, in their use of the words "economy" and "economic," as well, they present a significant contrast. The economist, however deeply tinged his ideas may be with the color of modern biological knowledge, habitually thinks of economy as a practice or condition of human beings who have acquired arts, and who produce wealth—*i.e.,* exchangeable goods—by means of industry, well regulated

[1] *Theory of Political Economy,* ch. iii.

by "business methods." Inherent in this conception—an almost essential part of it—is the notion that economy presumes a conscious being, endowed with capacity for pain and for pleasure, to plan and direct the economy and to profit by it. It is a notion that, after all, "economy" is only a refined form of the Greek "housekeeping," which the word originally meant.

From the Greek *οἶκος*, however, a far more general concept has been derived, and it is this which we straightway encounter when we turn from the pages of the economists to those of the biologists. Housekeeping is a system of activities and relationships that subserve the well-being of the housekeepers. Hence is derived the highly general notion of "economy" as any system of activities and relations which furthers the well-being of any class or species of living things. This is the biological meaning of the word, and we have therefore such phrases as the "economy of the animal kingdom," "the economy of the vegetal kingdom" and even—the most general concept of all—"the economy of nature." In these notions there is no implication of consciousness, of pleasure or of pain, and no presumption of intelligent planning or management on the part of the organisms that are benefited by their economy. The thought is altogether objective.

The bearing of these reflections upon our theories of society and upon the cult, (for such it has become) of the economic interpretation of history, was considered in Chapter II. It was there contended that if economic phenomena imply conscious intelligence, systematized industry and "business methods," even if no more complex than those of the *οἶκος* management of old Hellas, it cannot be maintained that economic phenomena are antecedent to social relations, and that if on the other hand economic phenomena are fundamental, it is incontestable that the economic interpreters must drop the economic conception of "economy" and adopt the biological. In this contention, as the reader was told, there is more to be said.

The theses which I now undertake to prove are: *First,* that in every stage of the evolution of life, from that of the lowest vegetal organisms to that of the highest human consciousness, economy is a function of two variables, namely, (1) the physical

environment, (2) a plural number of living organisms or individuals; *second,* that the relation of these two variables to each other, which may at any time be affected by changes occurring in the physical environment, is at all times largely determined by the relations which the organisms or individuals in plural number sustain to one another; and, *third,* that economy, as thus determined, is developed through four great stages or ages, which I shall call, respectively, the Organic Economy, the Instinctive Economy (instinctive and habitistic), the Apprehensive Economy, (childishly reasoning), and the Ascertaining Economy (scientifically rational); and that for unnumbered generations economy into which reasoning enters is an Apprehensive and Ceremonial Economy (apprehending and credulous yet fearing) before it becomes an Ascertaining (a verifying) and Business Economy. An analytical description of these economic ages will constitute the sufficient proof of my three propositions.

We begin, then, with the organic economy. This phrase must be interpreted as an abbreviation of a longer expression—namely, the economy of living organisms that are without psychologically functioning nervous mechanisms. It is the economy of the vegetal kingdom, and of the animal kingdom in so far as nervous mechanisms function physiologically only. From the standpoint of evolution it is the lowest stage in the economy of living things, and from the standpoint of time it is the primal economic age—the economy that must have prevailed before there were differentiated nerve cells, or dawn of that elemental sensibility which was to develop into conscious intelligence.

So understood, organic economy is a system of activities and relations that subserve the well-being of merely vegetal organisms and of all organisms in so far as they are physiological only. In what, then, does that system of activities and relations consist? The answer has been given in elaborate detail in the writings of the Darwinian evolutionists. The activities include alimentation, the waste and repair of tissue, and reproduction. Before Darwin's day an account of these processes would have been an extremely simple affair. Each would have been described in terms of observations made upon single and separate organisms, with but slight intimation that at every instant the physiolog-

ical processes were vitally conditioned by the relations of coexistent organisms to one another. Darwin revolutionized the description by showing that alimentation was conditioned by a struggle for existence, and that metabolism and reproduction were conditioned by natural selection, a result of unequal alimentation and other consequences of the struggle for existence. In short, Darwin and the Darwinians first gave us an approximately complete account of organic economy, and the precise fact, previously ignored or misunderstood, which they brought into prominence and explained the significance of, was that of the varying relations of coexisting organisms to one another, whereby the whole scheme of organic economy was, from point to point and from generation to generation, determined.

Nor is it merely the relations of organisms of many species indiscriminately mingling in the same environment that thus determine the scheme of organic economy. Most important of all relations are those subsisting among individual organisms of the same species and, above all, of the same subspecies or variety and of the same generation. Between widely unlike species there may be mortal antagonism or there may be a relation of mutual protection. Precisely the same is true of the individuals constituting a variety, except that now the relation of mutual protection is more important than the relation of antagonism. In the struggle for existence among the hundreds of varieties of plants in any garden or field there is, indeed, a continual crowding to the wall of weakly individuals by competitors of their own kind; but in the long run it is whole kinds that are crowded out, while large tracts are overrun by the multiplying individuals of a single kind, whose very numbers and contiguity are their chief protection against the encroachments of any other species. Every individual stem of lichen, moss or fern is protected by surrounding masses of organisms like itself; every blade of grass or grain, by thousands of such blades; and every pine in the wood, by the forest of pines about it. Thus in the realm of merely organic life we discover the economic importance of a grouping in one place of many individuals of the same kind. And this grouping and mutual protection of individuals of like kind, while not to be described as

a social fact, is yet a basis for social phenomena. It is a pre- or subsocial grouping, the beginning of developmental arrangements that may culminate in social relationships.

How organic economy shades into instinctive economy we very imperfectly know. Manifestations of irritability in nervous matter we can perceive. Reflex actions developing into co-ordinated movements can be observed. An instinct is a combination (or a complex) of reflex tendencies which normally complete themselves in action. Energized and stimulated it "goes," as an internal combustion engine goes when it gets fuel and the spark. When instinct has appeared in the organic world, a new development of economy has begun. Generations, numbered probably by millions, must live and die before it can become a conscious calculation and creation of utilities, but the well-being of the responding organism is now furthered by means vastly more complex than those which suffice for sub-instinctive life. Movement from place to place by the organism itself, and the ability of the organism to move things from place to place, have become factors of immeasurable importance in the economic scheme.

In due course irritability takes on sensitivity (psychologists have too often identified these two) but sensitivity itself, and the process by which it develops into sensation, into pain and pleasure, and ultimately into intelligence, are facts which arise out of and disappear into the unknown.

Instinctive action, then, may be accompanied by sensation, by pleasure or pain, by awareness, but it is not a conscious adaptation of means to ends in the sense that consciousness effects the adaptation. The delicate work of the wasps and bees in making their nests, the complicated labors of the nest-building fishes, the weaving and sewing and clay modelling of birds, the collective hunting and fishing and the collective defense against enemies seen among both birds and the gregarious mammalia—all these are a mechanistic behavior, as truly if a small measure of "trial and error" enters into them as when they are unvarying.

In short, in the whole marvelous economy of the animal kingdom, from the protozoa to man, there is no certain trace of what the subjective economists could by any stretch of meaning call

economic. The welfare of the organism which is subserved by adaptation includes a subjective element. Pain and pleasure have appeared, and the adaptation of means to ends tends on the whole to allay pain and to increase pleasure; but as yet subjective utility—that is, a circumstance of things varying with subjective want or satiety, and consciously recognized as the cause of an agreeable state of mind—does not exist. Only the elements out of which it may slowly be developed have come into being.

Yet, to an extent far greater than in the sub-instinctive or pre-instinctive organic world, economy has become a function of the relations of individuals to one another, at every moment determining the relations of each individual to the purely material environment. Readers of Darwin, Wallace, Brehm, Kropotkin, and later writers too many to name, do not need to be told that every food-getting and nest-building instinct, as well as every protective instinct in the animal kingdom, has been influenced quite as much by rivalry and combat as by quantity of food, the nature of the inhabited earth or water, or the climatic conditions which have entered as factors into the struggle for existence. In a yet greater degree, perhaps, have all these instincts been developed through the pluralistic like-reactions to common situations, and through the interstimulations, of the herd. It follows that, to an enormous degree, instinct is a product of the closely related activities of creatures of the same kind, living together in a common habitat. Even more than segregation determines well-being in the vegetal kingdom does consorting determine the well-being of an animal species. In fact, ages before man appeared upon the earth, and ages before any creature existed that could have entertained the concept of subjective utility, economy had been developed to the stage in which collective action and a division of labor counted as factors of high importance.

When evolutionist doctrine became a part of the common stock of ideas among knowing people, economists avowedly or tacitly assumed that the economy of industrial humanity was through various stages developed out of the instinctive economy of animals. The "historical economists" of Germany and their

American disciples before 1914 took pride in their reconstruction of the process. It seems that in the beginning was a "hunting stage"; then, in the course of ages, appeared the "pastoral stage." At length, after more ages, dawned the "agricultural stage," and finally, in the fullness of time, came to fruition the "industrial stage"—the end and consummation of nature's eons of travail. With all respect to laborious and learned men, I must protest that this economic philosophy of history is inadequate. It fails to grasp the actual facts which have marked the transition from instinctive to rational conduct in the human species. Not that there is anything untruthful about it as far as it goes. It is true that man hunted and fished before he learned how to milk, and that he probably had made some progress in the dairy business before he learned how to yoke oxen to the plough, although not before his squaws had learned how to tickle the earth with a stick. But it is also true that historical economists too often had a keener sense of chronology than of value. Their "historical" scheme of economic evolution was as accurate as the multiplication table; but it was one from which everything of real significance in economic evolution was as carefully omitted as *lèse majesté* from a chancellor's address.

The real question for which we should, if possible, find the answer is this: How did the human mind, slowly developing from instinct to reason, successively re-grasp the environment, successively re-interpret the relations of cause and effect and successively re-attempt to control the processes of nature in the interest of human welfare? Primitive man caught fish and killed game; but did he fish like Henry Van Dyke or hunt like Theodore Roosevelt? And, what is more important, did he think of man's relation to fish in the Van Dyke way, or of his relation to very fierce beasts in the Roosevelt way?

It so happens that we have an overwhelming mass of evidence that primitive man would have thought it absurd to the last degree to go "a-fishing" with no better equipment than a beautiful rod, a neat basket, a choice assortment of flies, a dainty luncheon and a vest-pocket edition of Keats. He would confidently have lotted on meeting an ignominious death if he had gone forth to battle with the mountain lion with no better im-

plements than the "latest improved" rifle, a bowie knife, a brace or two of pistols and buckskin leggings. The primitive man would have made from a bit of wood as neat a carving of the fish as his artistic instinct and humble tools could fashion, and would have put it in the water to swim in the direction which the fish usually followed. Then he would fervently and believingly have prayed to the fish to come; and this would have caused them to arrive. When he went hunting, he would first have made an ingenious trap; then he would have clothed and decorated himself in the best possible imitation of the ferocious beast to be caught. Buckskin leggings might, indeed, have had some virtue at this stage of the procedure, but on the whole the primitive man would have thought them insufficient. Having completed these preparations, he would nonchalantly have strolled into the woods in the direction of the trap and, quite carefully failing to see it, have very carelessly fallen into it, crying out in alarm that he was caught. Then, regaining his composure, he would have extricated himself as best he could, and readjusted the trap, knowing with certainty that the first unsuspecting beast that wandered that way would be caught and done for.

These fables teach that the economy of primitive man is as unlike the economy of his modern child, even when the latter reverts to the "hunting stage," as the savage theory of creation is unlike Darwinism. The primitive man's economy is no longer merely instinctive and habitistic. He has ideas, he consciously contemplates his situation, he perceives relations which the lower animals have never discriminated, and his imagination runs riot in explanatory activity. And yet it never once occurs to him that his well-being is to any great extent within his own control, least of all that by systematic labor, directed by "business methods," he could become master of his economic situation. He is beginning to be rational, but he is not yet scientific. He views the world as a fearsome aggregation of "creepy" objects, possessed of mysterious and often amazing powers for good and for evil. His well-being, as he believes, depends almost entirely upon his relation to those powers.

Instinct, even when overlaid by habit, is relatively unerring in its action. The instinctive bee does not experiment with new

geometric designs in constructing its cell. The instinctive bird goes about its nest-building business with a directness that might well be the envy of the human architect or contractor. There is little hesitation at any point in the instinctive economy of the animal kingdom. But reason is never unerring, never unhesitating. While instinct is correlative of the adaptation of an organism to those facts of the environment which remain constant, reason is correlative of that variation from old adaptations which an organism must make to a changing environment or to the varying features of an environment in which some features remain constant. Reason, therefore, always means choice, and choice means some hesitation, some deliberation. Accordingly, the rational economies of man (the apprehensive and the ascertaining), unlike the instinctive economies of the animal, are marked by perplexity, by doubt, by experimentation and the slow, painful process of discovery. Inevitably, therefore, rational economies develop by stages which can be understood only if we can trace the progress of man's intellectual development. The "obvious" stages of "hunting," "pasturage" and so on will doubtless still go chiming down the ages in the Mother Goose philosophy of history but, as was said, they have no scientific significance. Are there, then, any indications, psychological and historical, whereby we may discriminate the ages through which rational economies have been evolving?

Reasoning is a trial of this and that in thought, supplementing and economizing the trial of this and that ("trial and error") in action. Seemingly it begins with guessing, or conjecture. All authorities agree that the transition from instinct to reason is seen in that warfare of "contrary impulses" which was so admirably described by James [1] and in the "hesitation" emphasized by Marshall.[2] Circumstances having arisen, through environmental change or otherwise, in which instinct or habit no longer can guide the organism aright, the mind begins to "wobble." It casts about more or less wildly for an answer to its questionings, and that casting about or conjecturing we call in our everyday speech merely guesswork.

[1] *Psychology,* Vol. II, pp. 389-393.
[2] *Instinct and Reason,* pp. 417, *et seq.*

Now guessing, as we all know, is the prevailing intellectual method of childhood, when reason is struggling with instinct for supremacy. It is the confirmed intellectual method of ignorant and undeveloped minds, in which reason is arrested at the childhood stage. Guesswork, however, is extraordinarily fallible as a guide to action. Sometimes it pierces the situation by a happy intuition, and sometimes it hits disastrously wide of the mark. Stumbling along a miry road on a dark night, the backwoodsman comes to a swollen stream and "guesses" that he can ford it. Plunging in, he finds it not half so deep or so violent as it looked, and he emerges on the other side complacently glad that he isn't the kind of fellow to be too easily scared. This reflection, however, is not the only idea in his mind at the moment. He is at the same time blessing his "good luck." Had it turned out that the stream was more formidable than he had guessed, and had he reached the farther bank barely alive and mourning the loss of his outfit, he would have been found not only chagrined over his bad guessing, but also energetically damning his bad luck. A strong belief in luck, in fine, always coexists with the guesswork stage of intellectual activity. The guess hits or goes astray, and luck does the rest.

Thus far the psychology of the primitive human mind as it survives among ourselves. How is it with the primitive human mind as it survives among savages? All observers unite in testifying that the lowest savage reasoning is purely conjectural, and that one of the strongest beliefs of the lowest savage is his ineradicable faith in luck. The element of industry enters into the economic life of the savage as largely, possibly, as it does into the economy of the lower animals. The savage looks for food and puts forth effort to appropriate it. He sometimes constructs rude weapons and equally rude tools. He sometimes builds a rude shelter and sometimes contrives a bit of clothing. Yet in all this economic activity he is disturbed and made doubtful of his procedure as the instinctive animal never is. If the savage gets the idea into his head that luck is against a particular plan of procedure in his hunting or fishing, or is against a certain pattern of construction, his economic activity in these directions is instantly inhibited. He then loafs about until

guesswork and luck suggest a new procedure. That this is the true explanation of the seemingly paradoxical fact that the primitive man, a little higher in the scale of existence than the highest quadrumana, is often less industrious and much less systematic in his economic activities than many lower species are, cannot, I think, be questioned by any investigator familiar with both the psychology and the sociology of savage groups. The fact is not, however, as paradoxical as it seems. A luck economy is the first stage of a rational economy, and the very lowest sort of rational economy is a degree advanced beyond the highest instinctive and habitistic economy. It is precisely because the savage does hesitate and trust to luck that he breaks down a lot of habits which would have been fatal to progress and, more or less by accident, adopts many new ways in which the potentiality of progress lies.

One test of any hypothesis concerning the early stages of an evolutionary process is found in survivals of each early stage in a later time. What was chronologically first to a great extent survives as the structurally or functionally low, just as the rocks old in time are in position deep down in the stratification.

Do we, then, find in civilization significant survivals of the luck economy? Turn to the pages of Hesiod and read over again the *Works and Days,* but especially the calendar of lucky and unlucky days at the end:

> Mind well, too, and teach thy servants fittingly the days appointed of Jove. . . . The eleventh and twelfth, both in truth are good, the one for shearing sheep, the other for reaping laughing corn: but the twelfth is far better than the eleventh, for on it, look you, the high hovering spider spins his threads in the long summer day, when also the wise ant harvests his heap. On this day, too, a woman should set up her loom, and put forth her work. But on the thirteenth of the beginning of the month avoid commencing your sowing; though to set plants it is best. The sixteenth, however, is very unprofitable to plants. . . . Nor, in truth, is the first sixth day suitable for the birth of girls, but a favorable day for cutting kids and flocks of sheep, and for enclosing a fold of sheep. . . . On the eighth of the month emasculate the boar and loud bellowing bull, and on the twelfth the toil-enduring mules. . . . On the seventeenth watch well, and cast upon the well-rounded threshing floor Demeter's holy gift; and let the woodcutter cut timbers for chamber furniture, and many blocks for naval purposes, which are fit for ships. . . . Now, few, again, know that the twenty-ninth of the month is best both for broaching a cask, and placing a yoke on the neck of

oxen and mules and fleet-footed steeds. . . . On the fourth day open your cask.[1]

Hesiod and the graceless agricultural brother whom he admonished lived long ago, to be sure, yet the practical American of the twentieth century need not plume himself on being much less a devotee of luck than was the imaginative Greek. Give the average American his choice between making a certain competence by diligence and good judgment or possibly making a fortune by operations in land or in stocks, he will take the gamble. Endless protestations by "the moral element" have only demonstrated that the love of gambling is one of the strongest of human passions. Guesswork and a belief in luck, in fact, run through all our business undertakings and bring to naught innumerable promising enterprises. I have often wished that an ingenious statistician would compute the annual average loss of property and of life in the United States directly attributable to the belief in luck. The railroad corporation takes its chances with wornout rails and decrepit bridges and pays hundreds of thousands of dollars in damages. The owners of buildings take their chances with "jerry" construction and see their property disappear in collapse or in smoke. The shipowner takes his chances with rotten hulks on the sea, and the banker with rotten securities on the street. One and all, they are devotees of luck. Even the religious beliefs of this most secular and most sceptical of peoples are permeated through and through with the primitive man's philosophy of luck. I remember in my boyhood hearing old ladies tell of finding names for babies by opening the Word of God at random.

The second stage in the development of reason, following close upon the guessing or conjectural, is that of reasoning from analogy. The mind begins to form conclusions by assuming that essential resemblance, or identity, goes with superficial likeness. Imagination is a lively coadjutor of reason at this stage, and the reasoning is as likely to follow the psychological laws of the blending of mental images as to obey any law of logic. Yet, even so, it enormously multiplies the number of possible ways in which man can experiment in his economic life. Imag-

[1] The translation is that of the Bohn Library.

ination, however riotous, corresponds on the whole a little better than conjecture to objective possibility. In other words, experiments suggested by imagination and analogy are likely to yield a larger percentage of successes than experiments suggested by mere guesswork.

Now it is quite in keeping with the nature of things psychological that we discover, at a certain stage in the evolution of savage culture, a system of thought and practice which corresponds to the analogy-loving stage in the development of reason. It is known as magic, and long was regarded by ethnologists as all of a piece with ghost worship and primitive supernaturalism in general. Then the suggestion was made, and too well backed up by facts to be dismissed lightly, that magic, instead of being the beginning of supernaturalism, is, in reality, the beginning of naturalism, in a word of a natural philosophy. Ethnologists like Spencer and Gillen in Central Australia, Miss Kingsley in West Africa and W. W. Skeat in the Malay Peninsula, unaware of each other's researches, almost simultaneously arrived at this view, and discussion of it was well summed up by Frazer, in a new edition of *The Golden Bough.* The fundamental principles of magic, according to Mr. Frazer, can be reduced to two, namely:

> First, that like produces like, or that an effect resembles its cause; and second, that things which have once been in contact but have ceased to be so, continue to act on each other as if the contact still existed. From the first of these principles the savage infers that he can produce any desired effect by merely imitating it; from the second he concludes that he can influence at pleasure and at any distance any person of whom, or anything of which, he possesses a particle.

When Mr. Frazer wrote this passage the lore of "mana" and its vocabulary ("orenda," "power," "virtue," "it," and so on) hardly existed as a chapter in anthropology. In view of what is known now it will not do to assume that the savage attributes mysterious potency to imitations as such or to contacts (past or present) as such. Presumably he looks upon them all as means only for calling forth or for communicating this or that mana, good or evil, inhering in this or that concrete thing or person. I say "this or that" mana because we may be sure that the savage is no pantheist. He has no abstract notion of a universal power,

indwelling in everything and everybody. He knows only specific and various powers. They are migrant, however, and communicable: they are contagious. Each mana is something that a thing or a person can "catch" or impart by contact, and sometimes in other ways.

These notions serve the savage mind in more ways than one. They gather accretions of analogy and convert them into simple classifications. Persons that have the same mana are akin, and things that have the same mana are a kind. Conversely, things and persons that are of a kind or a kin have the same mana, and so have things that are alike. Also things or persons, even things and persons can be made of a kind or a kin by exchanging mana or by partaking of the same mana. This can be done by contact—a laying on of hands, for example, or by eating the same food or drinking the same drink or by otherwise sharing something. Also it can now and again be done without physical contact or any sharing of material substance. The savage knows that by getting excited he excites others, and that others by getting excited excite him. He knows that when he mimics others are likely and apt to mimic, and that when they mimic he yields to an impulse to fall into like mimicry. "Power" leaps through distance, from one to another. Often it goes further, from men to animals and from animals to men, a common excitement infecting all. Does it even from men and animals infect vegetation and from vegetation infect animals and men? The savage assumes that it does.

Satisfying the earliest craving for theory and naively practiced as the first art of control over nonhuman realms, magic gives plan and direction to the entire scheme of economy. Examples of its application to fishing and hunting have already been given. Others could be added almost without limit. When an Aleut has wounded but not killed a whale he separates himself from his people for three days and, abstaining from food and drink, snorts in imitation of a dying cetacean. This helps the whale to die.[1] The Galelareese of Halmahera—an island west of New Guinea—when going out shooting are careful to put a bullet in

[1] I. Petroff, *Report on the Population, Industries, and Resources of Alaska*, p. 154.

the mouth before dropping it into the gun. By thus imitating the eating of game, success in hunting is rendered certain.[1] A Blackfoot Indian who has set a trap for eagles will not eat rosebuds, because, if he did, when an eagle alighted near the trap the rosebuds in the hunter's stomach would make the bird itch and, instead of swallowing the bait, the eagle would merely sit and scratch itself.[2] When a Malay has baited a trap for crocodiles he is careful in eating his curry to begin by swallowing three lumps of rice successively. This helps the bait to slide easily down the crocodile's throat.[3] Spencer and Gillen have described in minute detail the elaborate ceremonies performed by the Central Australian natives for the purpose of multiplying the witchetty grubs which are an important means of subsistence. Men of the witchetty grub totem build a long narrow structure of branches in imitation of the chrysalis case of the grub. In this bower the men seat themselves and sing of the witchetty in its various stages of development. At length they shuffle out in a squatting posture, singing of the insect emerging from the chrysalis. This insures an abundance of grubs.[4]

Survivals of imitative magic are not quite so easy to identify in later civilizations as are survivals of the economy of luck, yet they are by no means infrequent. Many of the festivals connected with agriculture among the Greeks and the Romans, and similar festivals surviving until a comparatively recent period in parts of Central Europe, are clearly of this nature. In nearly all of these festivals a pantomimic element in the songs and dances and in the processions around or back and forth across the fields is associated with a sacrificial element of later origin. The pantomimic element may without much hesitation be regarded as a survival of the age of magic. The myth of the burning brands tied to foxes' tails, which we find in the story of Samson, and again in the Fasti of Ovid,[5] is believed by Mannhardt, Frazer and

[1] M. J. van Baarda, "Fabelen, verhalen en overleveringen der Galelareezen," in *Bijdragen tot de Taal-Landen Volkenkunde van Nederlandsch Indie,* Vol. XLV (1895), p. 502; quoted by Frazer, *Golden Bough* (second edition), Vol. I, p. 25.
[2] G. B. Grinnell, *Blackfoot Lodge Tales,* pp. 237, 238.
[3] W. W. Skeat, *Malay Magic,* p. 300.
[4] Spencer and Gillen, *The Native Tribes of Central Australia,* p. 176.
[5] Vol. IV, p. 681 *et seq.*

others to have originated in the widely spread notion that the fox's tail bears a close resemblance to the ear of wheat. Professor Gubernatis[1] quotes a modern Italian folk tale in which a fox is frightened away by chickens, each of which carries in its beak an ear of millet. The fox is told that these ears are all foxes' tails, and he runs. It is probable enough that, in a long-forgotten past, the foxes were let loose to run over the fields, that the magic influence of their tails stimulating fertility might insure an abundant harvest. Presumably, however, the burning brands were thought of not so much as imitative and symbolic of the light and heat of the sun that would be necessary to ripen vegetation, as charged with and releasing the same "power" that the sun gives forth. Such a use of the brand is, indeed, so obviously in keeping with the "general run" of magic practice that one is surprised to find Fowler, commenting upon Ovid, saying: "If the foxes were corn spirits, one does not quite see why they should have brands fastened to their tails."[2] The Roman festival of the Parilia consisted very largely of imitative magic. The sheepfold was decked with green boughs and a great wreath was hung on the gate:

> Frondibus et fixis decorentur ovilia ramis,
> Et tegat ornatas longa corona fores.[3]

This sort of decoration found throughout Europe to the present day at May Day, Midsummer, Harvest and Christmas, is admittedly a survival of primitive magical rites to influence vegetation. The purification of the Roman sheep by sprinkling was, in like manner, in form imitative and symbolic, in substance an imparting of mana. The real purification was accomplished by burning sulphur.

That many survivals of a magic economy could be found in our own country I have not the slightest doubt. A few practices will occur to almost every one. When John Uri Lloyd in *Stringtown on the Pike* makes Cupid turn his coat inside out in order to change his luck, he describes a practice that is by no means confined to negroes. Once I witnessed the magical treat-

[1] *Zoölogical Mythology*, Vol. II. p. 138.
[2] *Roman Festivals*, p. 78.
[3] Ovid, *Fasti*, IV, 737, 738.

ment of lockjaw, on a Massachusetts farm not distant from my own. A nail driven into the hoof of a horse by a careless blacksmith was, when pulled out by the veterinary surgeon, carefully greased by the owner of the horse, wrapped in flannel and kept in a warm place until after the equine obsequies.[1] In out of the way neighborhoods American farmers still believe that hogs should not be killed in the old of the moon, because a waning moon will make the pork shrink in the pot.

A higher stage of reasoning than the analogical is the deductive and speculative, or dogmatic. The mind has grasped the difference between mere analogy and necessary implication. It has acquired logic. Granted certain premises, the deductive thinker can with a high degree of certainty arrive at necessary conclusions. He begins to reconstruct the entire scheme of knowledge. But, enamoured of logical method, he fixes attention almost exclusively upon the successive steps of the reasoning process, often to the entire neglect of the premises upon which the whole superstructure rests. The premises, therefore, of the most pretentious system may be a lot of childish beliefs fortified by age and sacredness.

It is when this stage of reasoning is reached that barbarian man, reconstructing his philosophy of nature, as represented both in magic, and in the belief in ghosts, almost as ancient, begins to people the unseen realms of the sky, of the sea and of the underworld of earth with personalities of supernatural power; he begins to create the immortal gods. To his anthropomorphic deities he now ascribes the function of meting out good and evil. His whole welfare he conceives is determined by their attitude toward him as an individual or, to a yet greater extent, by their attitude toward the community to which he belongs. Their friendliness must at any cost be secured. They are supposed to have the needs and to be subject to the passions of men. They must therefore be propitiated; they must be well fed and lavishly praised. If the propitiator has reason to know that his deities have arrived at "the agricultural stage," he gives them corn and wine. If, however, like Cain, he reasons from false premises, he comes to grief, and the blessing falls upon the Abel who has

[1] For a like example, see Cooper, *The Spy*, ch. xi.

offered meat. The entire scheme of economy is now transformed. It becomes a sacrificial economy. Communities and individuals prosper in their herding and their agriculture if they are faithful and, above all, generous in their sacrifices. Everything that happens is viewed as a special providence. Droughts, famines and pestilences are punishments, to be averted, not by forestry or quarantine, but by holocausts and prayer. Glorious crops and riotous prosperity are rewards bestowed upon exemplary piety.

To recount the survivals of the sacrificial economy in civilization would be to catalogue half of the doings of Babylonians and Egyptians, of Greeks and Romans, and of later Western peoples. More significant is it to observe specific survivals that preserve the combination of the magic economy with the sacrificial, as well as specific survivals of a later time which show the continuing influence of the sacrificial tradition in communities that have become materialistic and businesslike. Of the former there is probably no better specimen than the festival of the Fordicidia (April 15), one of the oldest sacrificial ceremonies in the Roman religion. It consisted in the slaughter of pregnant cows, one in the Capitol and one in each of the thirty curiæ.

> The cows were offered [says Fowler], as all authorities agree, to Tellus, who, as we shall see, may be an indigitation of the same earth power represented by Ceres, Bona Dea, Dea Dia, and other female deities. The unborn calves were torn by attendants of the virgo Vestalis Maxima from the womb of the mother and burnt, and their ashes were kept by the vestals for use at the Parilia a few days later. This was the first ceremony in the year in which the vestals took an active part, and it was the first of a series of acts, all of which are connected with the fruits of the earth, their growth, ripening and harvesting. The object of burning the unborn calves seems to have been to procure the fertility of the corn now growing in the womb of mother earth, to whom the sacrifice was offered.[1]

Here we have a perfect connecting link between the magic economy and the sacrificial. The burning of anything of value would have been sacrifice. The selection of a product and emblem of fertility, that the corn might abundantly fructify,—that was the cult of mana become magic.

One almost hesitates to speak of very modern examples of the

[1] *Roman Festivals*, p. 71.

sacrificial economy, even in a strictly scientific spirit, lest one should unwittingly wound the religious feelings of people whom he respects. Disclaiming all such intention, however, let me call attention to the almost unparalleled intensity of the belief in Providence which prevailed in New England down to the present generation. Among the earliest acts of the Plymouth colony was the institution of days of fasting and of thanksgiving, which were no such mere holidays as we have become used to in later times. Let no one imagine that these religious institutions of the Pilgrims had any direct bearing upon the problem of weal or woe in a future life. They were religious institutions of a strictly economic order. They were supposed and expected to influence well-being in this present evil world, on the shores of Plymouth Bay, A.D. 1621. No one can read the writings of the Winthrops, Cotton Mather, Increase Mather, Bradford, and Samuel Sewall, without seeing that in the belief of those founders of our Puritan statecraft in New England the people of the colonies were especially chosen of God to play a leading rôle in the outworking of the divine plan of salvation, and that to such end their economy would be guided and furthered by the Almighty to just the extent necessary to accomplish the divine purpose. Practically every event that happened—every change in prosperity, every famine or abounding harvest—was explained as essentially miraculous, and as following upon the piety or the wickedness of the colonists, rather than upon their shrewdness, their energy or their thrift. The title of Edward Johnson's famous treatise, *The Wonder-Working Providence of Zion's Saviour in New England,* perfectly expresses the habitual attitude of the early New England mind.

Is that attitude entirely a phenomenon of the past? Surely no one will venture to say so. The public fasting and prayer that were observed in the Middle West late in the nineteenth century when locusts were moving in devastating march across the great grain belt, might be repeated any day, and generations will pass before the best people will cease to believe and to say that the locusts disappeared immediately after and in consequence of those acts of worship.

Let me now recall my main contention that in any age the system of economy then prevailing is a function not merely of the relation of an individual to a purely physical environment, but rather of the relation subsisting between a physical environment and a plural number of coexisting and resembling individuals, sub-social or social in their relations to one another. Organic economy, I showed, was thus to a great extent a function of segregation—that is to say, of certain groupings of resembling organisms in one given place or region. Instinctive economy, in like manner, I showed was largely a function of gregarious relations among the lower animals. In a still higher degree, it is certain, the luck economy, the magic economy and the sacrificial economy, constituting the first three stages of the rational economy of man, are functionally determined by the social relations of men to one another in their slowly developing communities. These three economies may be brought under the inclusive term, Ceremonial Economy. In one and all the specific conduct which is expected to bring economic well-being is the performance of a ceremonial act. Labor *to some extent* of course is necessary. Cooperation and the division of labor *to some extent* may be found, but these purely practical and materialistic factors in and of themselves would be absolutely unavailing, in the belief of primitive or of barbarian man. Far more thought does he bestow upon the exact performance of one or another rite than upon the exact performance of his labor. Far more time and wealth does he bestow upon sacrifice than upon the accumulation of a fund of capital.

But ceremony, it is quite unnecessary to argue, is purely a social phenomenon. It is developed by imitation and handed on by tradition. Equally unnecessary is it to argue that the successive developments of reason, from the conjectural stage, which goes with and produces the luck economy, through the imaginative and analogy-loving stage, which produces the magic economy, into the deductive stage, which produces the sacrificial economy, are also a product of social relations and could nowise be accounted for by the direct relationship of the individual to his physical environment. Reasoning presupposes conceptual

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thinking, and conceptual thinking presupposes language.[1] Ceremonial economy is, then, from first to last, a function of the social relation.

Now at length I come to a consideration of those stages of economic evolution to which, and to which only, the modern science of economics can be said to have an explanatory relation. It is not until social phenomena have become complicated in a high degree that the phenomena which admit of explanation in terms of modern economic concepts come into existence. The phenomena of organic economy and of instinctive economy can be and must be explained in terms of the useful potentialities of the environment, complicated by segregation, grouping, and the pluralistic behavior of gregariousness. The phenomena of the first three stages of rational economy must be explained in terms of the same facts, further complicated by that developing reason which will presently evolve notions of subjective utility and of value. These notions appear at the dawn of civilization or possibly just before. They certainly do not exist at a much earlier time. The luck economy is roughly coincident with that stage of evolution which I have elsewhere called anthropogenic association.[2] Magic economy is roughly coincident with the earlier half of ethnogenic association. Sacrificial economy is roughly coincident with the later half of ethnogenic association. Only with demogenic or civic association does ceremonial economy in all its forms slowly begin to give place to the business economy of the modern man, the subject-matter of the studies of the political economist.

Coincident with the beginning of this change is the attainment of inductive reasoning which, thenceforth, is a potent factor in further change. In the third stage of reasoning, as we have seen, man has become logical. No longer satisfied with mere analogy, much less with conjecture, he reasons deductively from

[1] A clear perception of this truth has led Payne, in his admirable *History of the New World Called America,* to break in upon his clear exposition of the economic history of the civilizations of Mexico and Peru, and to devote a large part of his second volume to an account of the nature and evolution of the American languages.

[2] *Principles of Sociology.*

accepted premises to "necessary" conclusions. The fatal weakness of his procedure lies in the usual indifference of his mind to the validity of his premises. He has not yet learned to subject them to a searching criticism, and he does not learn to do so until, little by little, his mind becomes in a measure inductive. Now induction, strange as it may seem, is in a certain sense a return to analogy. Systematic induction begins with observing the resemblances of things that are alike and the differences of things that are unlike, and, on the basis of resemblances and differences, sorting things into classes. Strictly speaking, the great difference between the analogical reasoner and the inductive reasoner is the difference between a thorough, exact worker and a superficial, inexact worker. Deductive reasoning, in like manner, is a development of the conjectural or guesswork state of mind. It is the careful drawing out—by exact logical steps—of whatever may be contained in a premise taken for granted—that is, in nine cases out of ten, conjectured. A few pages back I gave qualified assent to Frazer's proposition that magic was the beginning of a natural philosophy. I may now add that belief in luck was just as truly the beginning of supernaturalism. The doctrine of magic was the product of minds reasoning by analogy and capable, in course of time, of developing into minds inductive and scientific. Belief in luck, in like manner, was the product of minds reasoning conjecturally, and sure in time to develop into speculative philosophers and dogmatists.

Only when the human mind had become to some extent systematically inductive and critically observant of premises could the real relations of cause and effect in nature be discovered; and only then could man understand that his prosperity must depend chiefly upon his systematic industry, his invention, his skillful organization of association—in short, upon the development of his business habits, rather than of his ceremonial punctiliousness. Then, and only then, could begin the later economic ages, namely: the age of Slave Economy, or of the systematic exploitation of servile labor; the age of Trade Economy, or of the exploitation of situation; and the age of Capitalistic Economy, or of the exploitation of the powers of nature.

Such a change in man's habits of reasoning probably could not

have occurred apart from the commingling of kinsmen and strangers, of native born and foreign born, which engendered a δῆμος (a people) in distinction from an ἔθνος (a wide kindred). Demogenic association brought about comparisons of traditions, and of experiences, in the course of which long accepted beliefs were for the first time questioned. From such a shock dogmatism could not wholly recover. New categories of things and of thoughts were inductively formed.

Reacting upon one another and together reacting upon traditional culture, demogenic association and inductive thinking converted an ethnic society into a civil social order, and created civilization. Successive steps of the process can be made out. The consorting of ethnically heterogeneous elements assimilates practices; incidental discussion correlates ideas. Consorting and discussion assimilate standards of living, and thereby standardize consumption. A standardized consumption and a verified knowledge that accumulates and permeates, further assimilate. Survivals of the luck, the magic, and the sacrificial economies are resistant to attrition, but they lose prestige.

CHAPTER IV

THE QUALITY OF CIVILIZATION

According to varying ratios in which the factors of civilization just now named and others are combined, civilization develops varying qualities. Process and product are disclosed by the earliest civilizations and, as well and on a larger scale, by the turbulent civilization of our own time. Having dwelt so long upon primitive thoughts and doings I shall now, partly for change of scene, and partly for perspective, take many of my facts from American life.

From early times men have seen a significant association between ethnic and social solidarity. They have associated the jostling of ill-assorted elements in urban multitudes with a relative failure of collective achievement. Both Greek and Roman writers turned this popular wisdom to literary and to philosophical account. In a well-known writing, addressed to his mother Helvia, Seneca, prime minister to the Emperor Nero, has described the social population of Rome and incidentally has betrayed his own personal estimate of the civilization which he loyally, if sometimes discreetly, served.

> Behold this multitude [he exclaims] to which the habitations of a city scarce suffice! It is mainly composed of people not born at Rome. From country towns, from colonies, from the whole wide world, they flow hither as a river. Some are spurred by ambition, others come to fulfil public functions. Debauchees seek here a place where every vice may be indulged. Some among us have come to satisfy their taste for letters and the arts, others their craving for spectacular shows. People flock hither in the wake of friends, to display their talents on a wider stage. Some are here to sell their beauty, others to sell their eloquence. In short, the human race foregathers here, in a city where virtues and vices alike are paid at higher rates than elsewhere in the world.[1]

The traits of Roman civilization are every day discovered in the life of modern nations—a circumstance explainable in part by the

[1] Seneca, *Consolatione ad Helviam, 6.*

facts, in part by the unconcealed historical scholarship of our public men—and predictions are freely made that America, in particular, is destined to repeat the story of imperial decline and fall. Contrasting with this light readiness to interpret ourselves in terms of Roman experience, is our silent admission that we are not reproducing civilizations to which Rome, even as their conqueror, paid the tribute of respect.

No historian has proclaimed resemblance between any modern people and the creators of a civilization which for four thousands years endured in the Valley of the Nile. Splendid and imperishable, Egypt stands supreme and apart. Protected by desert frontiers from recurrent invasion, and from immigration on the great scale, her people, more homogeneous than any other considerable population of which we have record, developed a community of mind which enabled them without the harsher features of despotism to combine their efforts in an amazing collective efficiency. Intellectual and economic power, religious and artistic sincerity, expressing themselves through the perfect cooperation of men who spontaneously felt alike and thought alike, produced an unrivaled unity and stability which stamped the quality of incomparable dignity upon Egyptian civilization.

There is no other land like Egypt, and so it has happened that regions bountiful enough to support dense populations have attracted a multitude of ill-assorted elements. And with what result? The confusion of tongues at Babylon was typical of the incapacity of mixed multitudes for great cooperation, except as they have been organized by external authority, or have themselves evolved the imperator. If their territory has been exposed to invasion, they have fallen under the yoke of a conqueror, or war has hammered them into a more or less mechanical cohesion. In either case, they have developed a militaristic empire which commonly has displayed the qualities of power and splendor, but at the cost of freedom.

In regions not favorable to large military operations, like the Aegean Islands, or the diversified coasts of mainland Greece, mixed populations, maintaining their local liberties, have created civilizations marked by intellectual expansion, but not safeguarded by political cohesion. Too frail to hold their own in

the struggle for existence, they have left their treasures of thought and art a heritage to ruder but sturdier folk.

So in contrast to the strong but not inhumanly despotic, the vigorously creative but not ideally free civilization of homogeneous Egypt, two original and distinct types of civilization appear to have been created in the early days by mixed populations; the one harshly despotic but effective, the product of incessant war; the other free and differentiated, intellectually and morally dynamic, but unstable, the product of an exuberant community life under conditions of local security.

Rome, militaristic for purposes of expansion chiefly, and not compelled to fight incessantly for her life with enemies nearly as strong as herself, created a civilization of compromise. Imperially strong, she often respected and safeguarded the local liberties of her component parts, and usually protected the personal liberties of her citizens. Under these conditions an individualism arose which submitted itself at least conventionally to the imperial will, but displayed little sense of obligation to the collective welfare. It is the compromise civilization of Rome which survives in our world today.

The resources of a new continent have drawn to America a population as variegated as that which crowded the Euphrates valley and more miscellaneous than that by the Tiber. Protected by ocean barriers against military invasion, and not compelled, as Rome was, to conquer room for free expansion, the American population has been working out an experiment largely new. With a minimum of foreign war, and without militarism, it has created a more than imperial political solidarity with relatively little restraint until now of local or personal liberty. It has created, too, an individual enterprise without parallel, but it has yet to achieve the diversified and finer results of collective efficiency.

For sectarian liberty and local independence the colonists of New England sacrificed most other things that men have cared for. In extreme contrast, it was not community life of any kind, but an untrammeled individualism that fixed the ideas and formed the habits of pioneer adventurers who conquered the wilderness beyond the Appalachian ranges and traversed the plains

of the West. And in those environments for two generations the opportunities for individual achievement were limitless and intoxicating. It is therefore not strange that men of obscure origin have wielded in America a power greater than that of old-world kings, not occasionally, as from time to time has happened in other lands, but in so many hundreds of instances that no one can recall them all. By sheer individual effort and individually controlled organization, Americans have created in less than three hundred years the greatest aggregation ever seen, of industry and graft, of capital and wreckage, of toil and luxury, of comfort and misery, of sanctification and crime.

In the domain of collective achievement we have attained no corresponding eminence, although we have accomplished much that has been worth while. On the executive side our central government has been strong and our state governments have been vigorous, because they have been products of a party system built up by machine methods under boss leadership, which always, in the last resort, is the unifying political agency in mixed populations. In matters of administrative detail, it is generally acknowledged, we have been wasteful and incompetent, while on the legislative side of political endeavor, we have conspicuously shown the ineffectiveness of unlike-minded men in cooperative undertakings. Our legislation has been discontinuous and uncoordinated, a product largely of shameless bargaining among conflicting interests.

And indisputably we have not by any happy combination of public activity with individual enterprise achieved certain results of collective effort which are commonly held to be distinctive of genuine, not to say high, civilization. We have not effectively protected life against criminal attack or against industrial accident, certainly not in the measure which experiment has shown to be attainable. We have not as a general thing made our towns safe against the elemental risk of fire, or beautiful to look upon, or satisfying to the mind.

We have, however, developed national feeling and patriotism. Notwithstanding the heterogeneity of our population, we acknowledge a certain solidarity of sentiment, and it appears to be

fortified and possibly is more or less guided by an increasing solidarity of opinion.

We have been in the habit of attributing this measure of agreement to example and suggestion. We have thought of it as both an unconscious influence and a conscious teaching proceeding from a hitherto dominant Anglo-Saxon stock. We explain so much solidarity of mind and heart as now prevails as a product largely of assimilation, and our faith in the American future rests chiefly in our ability further to assimilate the differing minds and wills of our citizens of foreign birth.

It is worth while, therefore, to ask what assimilative forces have chiefly been effective so far in American life, and are likely further to strengthen such community of spirit as may yet give to our civilization the qualities of unity, effectiveness, and dignity, without restraint of freedom.

First among these forces I think we must name a standardized consumption. The immigrant discards the costume of his native land and adopts American clothing. With it he demands for his house and table the products that "everybody" has. This phrase almost literally describes the economic satisfactions of our well-to-do population. We have only to call to mind such articles of universal use as the carpet or rug, wall-paper, table linen, piano or phonograph, expensive clothing and jewelry, and to reflect upon the aggregate investment in such costly comforts as the automobile, by classes that were supposed to be unable to afford them, to realize how tremendous has become the standardizing influence of example and imitation in this field of economic consumption. As consumers of wealth we exhibit mental and moral solidarity. We want the same things. We have the same tastes. So far as this part at least of our life is concerned we have the basis and the fact of a highly general consciousness of kind.

On this fact rests the pertinent rejoinder to social theories which allege that neither the consciousness of kind itself nor any underlying community of thought and feeling, can henceforth be the ground of social solidarity or the characteristic phenomenon of the social mind. The economic operations of modern times are

carried on through specialization, and the industrial system, as we frankly recognize, is more and more becoming a correlation of differences in a working organization. Therefore, it is contended —for example by Emile Durkheim—that it is only the primitive undifferentiated group that is held together by a consciousness of kind. The modern complex group is an economic fact, and the social consciousness, as Cooley explains it, is the recognition quite as much of complementary differences as of mental and moral similarities.

What actually has happened, however, in the economic evolution of modern populations has been, on the side of production a marvelous differentiation and development of the division of labor and, on the side of consumption, an equally marvelous standardizing and assimilation. In the primitive community and in the undeveloped rural community now, every family produces many things, and each individual is to some extent a Jack-of-all-trades. At the same time each individual as a consumer asserts his individuality. He wears his hair long or short, according to his whim, and never tires of declaiming against the manners and the morals of city folk who must follow fashion at any cost. In the urban community, by contrast, consumption is ruled by the mode, while in the productive realm the Jack-of-all-trades and master of none is ever out of a job.

Moreover, if our accepted economic philosophy is sound, it is because of the standardization of consumption that we are enabled continually to differentiate the processes of production, and to specialize abilities. For while, as Adam Smith demonstrated, the division of labor is limited by the extent of the market, the extent of the market, as perhaps Smith did not quite so clearly see, is ultimately determined by the standardization of consumption.

Therefore it seems a safe assumption that the characteristic economic evolution of modern times, while producing differentiated ability as an incident of production, is also inevitably producing a remarkable uniformity of mind and habit in respect of consumption, and therefore an ever-increasing consciousness of kind to balance and control the consciousness of difference.

A second assimilating force is the scientific view of nature,

which all mankind is being forced to adopt because of our modern methods of getting a living.

For ten thousand years or more, as was shown, the human race lived by belief; it will live henceforth by knowledge. Its belief has been nine-tenths credulity, to one part of reasonable and sustaining faith in the possibilities of life. It has believed in luck and magic, in miracle and providential aid. By luck it has subsisted on fish and game; by magic it has sustained the fertility of its fields; by miracle and providential aid it has harvested its crops and brought its ships to port.

The religions of luck and miracle have been a multitude of faiths that no man could number. Each has united a band, a sect, or a greater body of devotees, but each of these bodies has distrusted and anathematized all others. And so long as religious differences have played a vital part in life, thoroughgoing assimilation and a universal consciousness of kind have been impossible.

But henceforth, in our own land at least, the people will not get their bread by luck, nor yet by miracle. Not only our manufacturing industries and our mining operations, but also our commerce and our agriculture, rest today firmly and broadly upon the scientific interpretation of nature. On every farm the boy learns something of chemistry and of biology, as in every shop he learns something of mechanics, of thermodynamics, and of electricity. And so it is coming about that millions of human beings can no longer be mentally diverse in quite the same old fashion. They can no longer swear by quite so many strange and jealous gods. They must think and they will think the same thoughts. They must view nature in the same way, and look forth upon life from the same point of observation, not because they have been converted by any proselyter, but because only so, under modern conditions, can they obtain their daily bread.

It may be optimistic to say, but probably it is true, that democracy, crude as it is and disappointing, is subtly an assimilating influence, as it is blatantly a leveling force.

Perhaps the most remarkable and probably the most hopeful development in present day political life is an increasing attention to things, over against an undue attention to persons. Representative government has been, all in all, the best kind of

government that men have been able to get results by, and it remains indispensable, even where we have also much direct democracy. No one claims perfection for representation, however, and its chief shortcoming is betrayed by an unfortunate psychological reaction. It permits men indolently to give over to delegated agents the consideration of concrete questions of public policy with the result, all too apparent, that political activity is resolved into a struggle over candidates while we neglect to grapple earnestly with questions. Direct democracy, in contrast, breaks down when it attempts to take over all legislative and administrative functions; yet it has merits, chief of which is its educative efficacy. It stimulates the citizen to think, with such intellectual power as he possesses, upon questions, the issues themselves. It was this virtue that made the New England town meeting the greatest school of political science and art that has existed among men. Through experiments in direct democracy, some of which work out well while many go wrong, entire peoples are learning now in a large way as the New England folk generations ago in a small way learned to think about things as well as to care about candidates; and this thinking assimilates.

If it be contended that the quality of a civilization is most affected by the physical vigor and the intellectual power of the population concerned, it will be admitted, I suppose, that assimilation is the factor significant in next degree. Assimilation, like indifferent nature mechanically, and like the conscious intelligence of man creatively, selects and combines. It rejects attitudes and habits that do not "fit in"; it modifies and combines those that do fit in. So it creates a type, as imitation creates a style; and style and type are things of quality. The most conscious selection of color values by a painter, of notes and bars by a composer, does not more surely produce distinction (or vulgarity) than a selecting and converting assimilation produces a quality of behavior.

Much depends upon the amount of assimilative work to be done. A population may be too heterogeneous to be civilized (appreciably) by assimilation (or otherwise) until natural selection has weeded out unassimilable elements. What is to happen in the Americas, North and South, prudent prophets do not prophesy too confidently. The confusion of tongues has not

abated in any nation of these continents, and in the United States (whatever is happening elsewhere) the clamor of conflicting purposes does not subside. We are reckless and unprepared, but noisily determined to be redoubtable. We are self-indulgent and lawless, but resolved to make ourselves good by law. We are sentimental and irresponsible, but set on efficiency. We buy editions, but do not diligently read. We live "handsomely," but not carefully, nor always self-respectingly. While these conditions prevail our civilization cannot "settle"; it cannot clarify; and until it runs more limpid than now it cannot temper zeal with dignity, or chasten power with graciousness.

CHAPTER V

A THEORY OF HISTORY

THERE may have been theories of history before *The Book of the Dead* was compiled. The title itself of that cheerful Nilitic document suggests that there were. Perhaps there will be theories of history after the Adams family has been forgotten, although this is more doubtful. That there will be comprehensive (and plausible) philosophies of history after the intellectual remains of Friedrich Hegel and Karl Marx have been cremated, is highly probable.

Speculation is here piquant and more or less alluring, but profitless. Turning, therefore, to the record of occurrence, one remarks that the historical theories of history are nearly as numerous as historians. Paradoxically, however, their historicity lies almost wholly in the circumstance that they are facts of record. So far as intellectual content goes they are philosophy rather than history, and the outstanding ones have been evolved by philosophers, not brought forth by historians. The reason, of course, is simple. History primarily is factual detail, and altogether concrete. Secondarily it ventures, timorously, upon generalization. It depicts "situations," "general aspects," and "trends." In so doing it becomes, in modest measure, philosophy or (sadly or gladly) sociology!

No fault can be found, therefore, with sociologists of the shameless sort if, to conserve energy, they generalize further and examine the theories of history not individually, in every instance, but usually by kinds or types.

From Plato to Comte and from Comte to the Adams brothers one encounters five distinct type groups of theories of history.

The first group comprises the predestinational philosophies of the metaphysicians, theological and other. In the second group fall the philosophies of social self-determination. Plato's view,

by his own account of it, was a hybrid. In part the gods arrange human affairs, in part men freely plan and freely achieve. A third group of interpretations goes back to geographical or "environmental" influence. The writings of Montesquieu remain the classical example, but the painstaking researches of present-day workers like Ellen C. Semple and Ellsworth Huntington are building a more substantial structure.

Theories of the fourth group explain history in terms of heritage (not heredity). Heritage is the total product (and by-product) of human activity hitherto which we now enjoy. It includes our acquired habits (in distinction from our original instinctive nature), our arts, our knowledge and our property. Piling up and distributing heritage, history cuts its own tortuous channel, as a river does when it scours mud and gravel from one bank to contribute it to the other. In their several and unlike ways Comte, Buckle and Karl Marx interpret history in terms of heritage. Comte sees mankind moving from a theological through a metaphysical into a positive or scientific intellectual habit. Buckle corrects naive resolutions of history into geography and climate by calling in a secondary or cultural environment, antecedent or contemporaneous. The Marxian "materialistic" interpretation, notwithstanding the mistaken and extravagant claims that have been made for it, is materialistic in a moral sense of the word only. It is an attempt to account for all that has happened or can happen to socially organized mankind by the aggregation and functioning of property.

The working hypotheses that make up our fifth, and for the time being last, group of philosophies of history, are modern. They are chapters out of the book of cosmic dynamics. They account for the stream of human experience as the solar system or a thunder storm is accounted for, as a case of equilibration. Herbert Spencer and Brooks Adams, leaving nothing to imagination, resolve it into a degradation of physical energy. Individual biologists and bio-anthropologists, taking the degradation of energy for granted, see history as heredity and natural selection. Taking physics and biology both for granted, I am writing these pages to intimate, and perhaps gently to argue, that human history is a psychological, or behavioristic, equilibration.

The premise merely, or datum, from which this intimation and this argument must proceed is not new. Modern fashion denies it and sneers at it. The premise is that men are not born equal, and from the beginning of time never have been. Or, in the language of dynamics, it is that just as heat energy is not uniformly distributed in space, and therefore radiates from molecules in lively motion upon molecules in sluggish motion; and just as physiological vitality is not uniformly distributed among stocks and races, and therefore some stocks are either driven to the wall or are kept alive by such as bear the infirmities of the weak; so behavioristic reaction to stimulation, whether it is an instinctive or a rational reaction, impulsive or forecasting, is more alert and more tireless, more ranging and more varied, more modifiable and more adaptive, better correlated and better coordinated on the part of some aggregations of men than it is on the part of other aggregations; and, therefore, practical activity spills over from alert populations, alert component groups and alert constituent classes, upon sluggish populations, sluggish component groups and sluggish classes. When the overflow began history began, when it ceases history will end.

Whether a theory exploitive of this premise will prove to be, as pure science, more illuminating or more clarifying than other theories of history have been, I am not sure; I hope it may. But if it is true, or as far as it is true, it has a pragmatic value that should obtain for it a patient hearing. The whole world at present is intellectually muddled and morally bedevilled. It is trying to reconstruct society upon a hypothetical equality of all mankind. If it succeeds, it will destroy historic achievement from the beginning, and will send mankind to perdition.

My venture, therefore, is an adventure; but before I and such as will go with me set forth upon it let us linger self-indulgently a moment (for it is a pleasurable thing to do) upon history in its concreteness, as it appeals to imagination and our love of mere narration.

History is a scenario and a play, a swiftly moving film and a drama in which every human passion contends with every other, brutally or intellectually, upon the stage of life. More than this,

history is also a prodigious creative effort, tremendous beyond our power to conceive it, and an achievement overwhelming to our finite ability to appraise. And always, whether as scenario or as play or yet as achievement, history is a story, holding in every generation the interest of childhood and of age.

Like all good stories it begins *in medias res,* that is to say, when men have lived long enough and have learned enough to leave written records of their doings. It begins, as far as our present knowledge goes, in Egypt and in Sumer.

But also, like all good stories, when history has introduced its characters it goes back, and more or less accounts for them, telling us something of their previous occupations and experiences, their interests, their associations and peregrinations, and how they happened to arrive in the situation where we have encountered them. This chapter in the story of history is now-a-days called prehistory, and because we have no written records to extract it from, it is essentially a film of scenes rather than a play, in the truer sense of the word. The materials for it have been obtained from geology and biology, anthropology and archæology.

As the reel begins to move we see sluggish rivers, and tropical trees alive with monkeys that have learned how to throw things and so, from safe distance, to beat off dangerous enemies that would make short work of them in the close-up fighting of bodily contact. Then we see apes, bigger and possibly more clever than the gorillas and chimpanzees that survive in our menageries. They can stand almost erect and fight with clubs as well as throw stones. They can build of sticks rough habitations for their young and are not afraid to shuffle about on the ground. Their bones are found all the way from Farther India to Southwestern Europe. Presently, in tertiary Java, we see Pithecanthropus Erectus, a brute so like an ape and yet so like a man that comparative anatomists hesitate to say for certain whether he is a primate only or truly *homo sapiens.* In any case he is a "link," no longer "missing," between man and his progenitors, and so we leave him.

Now on the screen come bones—only bones—but they stimulate

imagination. The Heidelberg jaw, the Piltdown skull, the Neanderthal skull—these are remains of man. Of this there is no doubt, and as a series they exhibit our kind progressively losing simian traits and, throughout one hundred thousand years after another, becoming the human species to which we ourselves belong.

From this point on we see things that early man makes, his artifacts: weapons, tools and utensils, and the places where he makes them and leaves them. At first, with his mate and children, his sisters and brothers, and their mates and children, he lives in the woods, along river margins, as numerous little savage hordes of the lowest type live today in the Andaman Islands, in tropical Africa and in Brazil; or they wander off in the bush, as Australians and Bushmen do. They hunt and fish and build habitations of boughs not much better than the gorilla's. Arrowheads and spearheads they make by roughly chipping flints. They weave mats of shredded bark and rude baskets of osiers and reeds.

They are widely dispersed, some of them in far northern parts of Asia and of Europe. With subtropical animals they made their way there, we guess, in the mild weather of interglacial time. Now the ice of a new glaciation creeping southward overtakes them. They retreat before it. Multitudes of them perish. Only the hardy and the resourceful survive. In the great caverns of Southern Europe they find shelter. There through thousands of years they dwell, learning to flake by pressure the flints that before they chipped. They make axes and hammers of stone, awls and needles of bone. They clothe themselves with skins. They carve ivory. They learn to draw and to paint and cover the walls of their caves with realistic (and beautiful) pictures of the cave bear, the sabre-toothed tiger and the mastodon which they dread, and of the reindeer on which they subsist. These are the greatest of the paleolithic people, the remarkable men of the Old Stone Age.

Elsewhere, in Northern Africa and in Southwestern Asia, paleolithic men become neolithic. They grind and polish their stone implements. Experimenting with clay they fashion pottery

on which they work geometrical designs, possibly symbolic, by incising lines into which they rub gypsum. Generations pass. By hand labor they till patches of ground in which they have planted seeds or roots. They cut trees into logs and fashion logs into posts, piles, beams and boards. They build houses to dwell in, and platforms, supported by posts driven into the ground or by piles driven in water, on which they enact ceremonies and afterwards build houses. They make canoes and boats. Again generations pass. On the grass-lands of Africa and Arabia, of Western Asia and Eastern Europe, we see restless groups of kinsmen caring for herds of goats and sheep and for larger herds of cattle. In the oases of Africa and of Arabia and of Central Asia east of the Caspian Sea we see villages built of various materials, wood and stone and sunbaked clay. We see shelters for cattle, ditches and moats filled with water, cisterns of water and wells, storehouses of grain, fires carefully kept alive, altars and secret places where ceremonies are observed.

More generations come and go. Throughout Northern Africa, throughout Central and Southern Asia, throughout Central and Southern Europe, men are living in villages and in little towns. These are strung like beads along the Euphrates and the Nile. Against druidic backgrounds of ancient oaks and pines they hide in quiet valleys among the foot-hills of mountain ranges. With their backs to walls of rock they defy the storms of wind-swept uplands. On platforms supported by piles, they are built above the waters of Swiss and Italian lakes; or, on dry land, with moats around them—*terramare*—they strangely imitate the lake constructions. In all of these various situations the inhabitants keep pigs and goats and cattle, and raise crops. A division of status and of work is seen. The people of a community are no longer in every instance of one kindred. Often the "place" is in fact not one village but two adjacent villages. In the superior one live kinsmen, who possess and rule the land round about. In the lowlier one live "aliens," a miscellaneous assemblage of "kin wrecked" folk, ruined by war or driven forth as offenders from the clans of their birth. They have been taken in. They are harbored and defended and allotted land to use on condition that

they render prescribed services. These are the "village communities" that economic historians used to picture as "free," idyllic, communistic democracies!

Near every settlement is a burial place, a "long barrow" or a "round barrow" of earth, or, now and then, a hollow cairn built of stones, perhaps in imitation of the caves where paleolithic dead were laid: two unhewn shafts supporting a heavy lintel above are the portal. Here and there also, at intervals from the Persian Gulf to Southwestern England, are more impressive megalithic monuments: avenues of giant shafts or great circular enclosures like Stonehenge. Presumably they have to do with festival processions and athletic events.[1]

With one more scene the film of prehistory ends. In mountain gulches men dig copper, and elsewhere tin. A glare against the sky by night betrays the places where they mix and smelt them, in rude crucibles of clay. They are making—bronze!

The human species now has overspread the earth, and racial varieties of it, both major and minor, are identified with broad geographical habitats. An Australian-African major division is black, kinky-haired, prognathic and usually dolichocephalic. An Asian-American major division is yellow in Asia and copper-hued in America, straight-haired and usually brachycephalic. A European-Polynesian major division is white in Europe and in Northern Asia, including Northern Japan, and brown in Northern Africa, in Southern Asia and in the South Pacific islands; it is usually wavy-haired and orthognathic, but in skull shape it is anything possible, dolichocephalic, mesocephalic or brachycephalic.

The European whites, who by early differentiation (in Europe or elsewhere) were of three varieties, namely, dolichocephalic Mediterraneans, dolichocephalic Baltics[2] and brachycephalic Caspians (a relatively late arrival), are now of four varieties, by reason of the crossbreeding of Caspians with Mediterraneans south of the Alpine ranges and with Baltics north of them. The Mediterraneans, not tall but well built, are brunette, with black

[1] Breasted, *Ancient Times*, p. 28.

[2] The name "Nordic," now in fashion, should be given to the entire northern blond half of the brown-white orthognathic race, whether found in Europe, in Siberia or in Japan. The Baltics are a sufficiently distinctive (and distinguished) variety to have a name of their own.

hair and dark eyes. The Baltics, tall and angular, are blond, with light hair and blue eyes. The Alpines, a Caspian-Mediterranean hybrid, are brachycephalic, thick set and in coloring variable, but usually lighter than Mediterraneans. The Danubeans, a Caspian-Baltic hybrid, are brachycephalic, tall and powerfully built, prevailingly ruddy, with red beards and hair and gray eyes.[1]

The prevailing languages of the white peoples have become inflectional. An Aryan tongue is spoken throughout the Asian-European grass-lands. Among all peoples there are reactions of excitement, including terrified avoidances or fearsome contacts, tŏwārd innumerable natural objects, in particular, springs, pools, rivers, cliffs, trees, reptiles and birds, and, in the grass-lands, bulls.

After prehistory, history; intense, tumultuous, short, its millenniums, compared to prehistory's eons, are a dynamic instant of time. Yet (such is the relativity of things) the perspective of history is atmospheric, if we keep our distance. Its scenes are geographically spacious, if the eye sweeps boldly. So we must view them now, inattentive to detail.

At the delta of the Nile and far up its course, at the head of the Persian Gulf and far up the Euphrates River, dense populations are distributed. There is no longer pretense that any one of these is a close-knit kindred. Aliens commingle with the native born, and many languages are heard. Agriculture is systematically followed. Industries are differentiated and specialized. Artisans of amazing skill make useful things of bronze, perfect of their kind, and fashion silver and gold and precious stones in patterns of beauty. Engineers build dams and reservoirs and a network of canals, to control and distribute the over-

[1] The confusion of Danubeans with Alpines in current anthropological literature is peculiarly annoying to the historian. The Romans discriminated. Caesar's Aquitani were Mediterraneans, his Celts were Alpines, his Belgae were Danubeans, his Germans were Baltics. The fair-haired Achaeans of Homer and the Hellenes generally were Danubeans. The Picts of the British islands were Mediterraneans, the Goidelic Celts were Alpines, and the Brythonic Celts were Danubeans, whose dialects now, by one of the curious paradoxes of history, are spoken by brunette Welsh, Cornishmen and Bretons.

flow of the rivers. Architects of commanding genius build palaces for the great, temples for the gods and the multitudes, and tombs for the venerated dead. Boats ply up and down the rivers. Where were towns there now are cities, turbulent with human life. Merchants import and export goods by caravans that cross deserts to foreign parts. Slaves breed in hovels, toil in quarries and in brick yards, and die. Scribes write down dates and taxes, and keep the record of dynasties. These urbanized peoples of the river valleys of the Southeastern Mediterranean area are creating civilization. Colonists, exiles and merchants will bear it to the farthest East; merchants and armies to the frontiers of the West.

On the island of Crete, Knossos, already old, unfortified but defiant, commands the Aegean Sea. Beneath it lie strata of débris, as priceless as pearls, left there by neolithic makers of hand-burnished pottery and by "early," "middle" and "late" Minoans. Round about it are lesser towns, but rich and powerful, which it controls. On the Aegean islands are its countless petty ports, and on the coasts of Greece its colonies: Tiryns on the Gulf of Argos, and Mycenae, marvelous for wealth and splendor, at the mountain pass as the trail runs from Tiryns to Corinth. The fabulous wealth of this maritime power, its treasures of bronze and gold, have been paid for by a distinctive and highly perfected art and by trade with Egypt and Asia and the coasts of Western Africa and of Europe. Its ships of commerce are safeguarded as they traverse the sea, and at every port, by ships of war—the first sea power.[1] Against this unique resplendent civilization of the Mid-East Mediterranean area the armies of Egypt and of Asia do not aggress.

Between the Black Sea and the Mediterranean, between the Taurus mountains and the Caucasus, between the Zagros mountains and the Caspian Sea, stretch the table lands of Cappadocia and Armenia, of Media and Elam, eastward to Persia and beyond. The armies of Egypt and of the Tigris-Euphrates basin invade them, following caravan routes, up water courses, through cañons and mountain passes. Overflowing from Elam and Media

[1] Egypt may first have navigated the eastern Mediterranean, though strict proof is lacking; but the argument that Egypt was ever a naval power is not yet convincing.

and presently from Persia, an Aryan stock repels them and swiftly extends its empire. In Cappadocia and throughout Eastern Asia Minor, a non-Aryan stock, the origins of which we do not see, appears as a military power. The Persian conquers the Euphratic, and the Hittite conquers a part of the Egyptian imperial domain. Each creates a civilization, in part derivative, in part original and distinctive. These civilizations of the West-Asian Uplands are stark and lean, but outreaching. Persia drives an Aryan influence into Northwestern India. The Hittite power transmits Sumerian and Semitic achievement to the Aryans of the West.

Enclosing the Aegean and Adriatic Seas three peninsulas thrust into the northern waters of the Mediterranean: Asia Minor in its western extension, Peloponnesian and Central Greece, and Italy. Northeast, north, and northwest of them are the mystery-haunted lands of the Aryan dispersion. Mountains and rugged hills hide lonely valleys or guard alluvial plains, open to the sea. On the lower slopes are olive trees and grapes, and above them chestnut trees and oaks. The coasts are irregular. Gulfs and deep bays cut into them, but also there are long straight reaches where no harbor can be found, and dangerous by reason of conflicting tides. Between Greece and Asia Minor Aegean islands can be seen off shore. The sea, impressionistically (since Agamemnon), is purple. On hills and plains the sun at noon is white, but evening and morning lights are violet. Beauty has taken these parts for her own. And hardy men, unafraid of loneliness or of the sea, sensitive to beauty and loving freedom; shepherds, herdsmen and plowmen, fisher folk and sailors; and presently artisans and merchants have taken them for their own. By comparison with the peoples of the River Valleys they are a sparse population and poor. Their cities, except possibly Troy, the oldest of them, which in its day has rivaled Mycenae, are less splendid, and their buildings are less majestic than those of Thebes and Babylon, but are infinitely more appealing to intelligence. Their statues and their paintings, for the first time in human achievement, attain truth through freedom restrained only by mastery of modeling and line. Racially they are a mixture of primitive Mediterraneans, Danubean invaders and Alpines, but slavery has limited hybridizing, and (it appears) more strictly in democratic Athens

than in aristocratic Sparta.[1] Their armies are small and local but valorous. The Athenian navy is a formidable arm. The East fails to invade European Greece; Carthage invades Italy but is expelled. These are visible features (we are not heeding now the processes) of the Peninsular Civilization of the North Mediterranean area. Athens tries to make it imperial but is unsuccessful. Macedon succeeds, but her empire is short-lived. Rome builds an empire geographically coextensive with Europe south of the Rhine and the Danube, with Northeastern Africa and with Asia Minor. In more than a figurative sense it is "built." Excellent roads provide a means of internal mobilization and communication never before equaled. The possibilities of the arch are developed in bridge building and in the construction of aqueducts, by which for the first time town dwellers are supplied with an abundance of pure water. This empire endures nearly half a millennium.

Rome and the Romanized populations of her provinces, a partly hybridized commingling of Mediterraneans, Danubeans and Alpines, are overrun by European Nordics, principally Baltics. Most of them are inlanders of the forests. They build boldly of timber but not of stone, and know nothing of engineering or of the finer arts. As invaders they burn and raze. Establishing themselves in overlordship, they roughly reorganize an existing serfdom, extending it and increasing the severity of obligatory services. Taught and aided by artisans of the old order, now under duress and robbed of all but traditions and skill, they build strongholds and presently castles of stone, from which they wage wars of pillage upon one another. Converted to Romanized Christianity, they build monastic houses and churches. About churches and castles villages of craftsmen and laborers grow up, but merchants are few, and imported goods all but unknown:

[1] Greek democracy was *intra-* not *inter-*ethnic, and the argument of the indiscriminatists that panmixia in Athens begot the most brilliant race of men in history suffers from the militating circumstance that the premise is not true. LaRue Van Hook has shown in *The Classical Journal,* May, 1919, that Athenian democracy was more than the internal equality (and clique warfare) of a social "four hundred"; nevertheless, Galton's guess that Greek genius was a product of early and prolonged inbreeding by aristocratic clans is probably the best one ever made. In Sparta, by all accounts, there was panmixia, the details of which may be left to feminist literature.

orderly trade has been destroyed. Almost the only contacts with the East are through missionaries from Rome and pilgrims to Jerusalem. Nevertheless, in ecclesiastical establishments and in guilds of artisans reminiscences of Latin civilization survive and presently ameliorate somewhat the struggle for existence and the manners of the time. So arises an isolated civilization of Inland Western Europe, a grotesque reaction of barbarism to the Mediterranean heritage. For centuries it is politically incoherent and intellectually barren until, alarmed by Saracen intrusion, it rallies about Charles Martel and the way is opened for Charlemagne. Horizons now are widened. The Mediterranean resurges upon the Baltic, and when, at length, the daring of the North and the intelligence of the South are mingled, their product is the matchless beauty, the wonder and the glory of Gothic art.

Looking back for a moment upon the migrations from which this unique civilization dates, we note that not literally all of the participants are inlanders. A fringe of them, dwelling upon dismal northwestern coasts, fog-hidden and forbidding, are fishermen and sailors. They can fashion keels as well as rafters. They, too, feel the *wanderlust,* but from Denmark they turn their faces west. The tempestuous North Sea calls them. They voyage to Iceland and the British coasts. They conquer Britain and possess it. Kindred Norsemen voyage to the coasts of Gaul, there to become Normans and in their turn to conquer an incompletely Anglicized Britain. In the Mediterranean, also, sea-faring traditions persist, and in the ports of Italy, of Southern France and of Spain the race of sailor men is not extinct. Communication between East and West is slowly reestablished. The knowledge of geography, of mathematics and of navigation, that Egyptians, Cretans, Greeks and Romans possessed, is recovered, and is disseminated among seafarers of the West. Trade with the East is unsettled, its ways are changing and its possibilities are multiplying. Christian crusaders take Jerusalem from the Infidel but are unable to hold it, and fail to break through to the East. An ocean way may be found. Voyages become longer and more daring. Canaries and Azores are left behind. The Cape of Good Hope is rounded. Dutch and English, French, Portuguese and Spaniards become maritime peoples and discoverers. The At-

lantic Ocean is crossed by an Italian backed by Spanish royal power and money. The Pacific Ocean is discovered from the West. The earth is circumnavigated. Europe explores and colonizes a Western Hemisphere. Ocean-fronting Nations, delimiting their boundaries and organizing themselves politically, create by ocean-borne commerce a civilization of the world.

In the play of History the *dramatis personæ* are not only individuals; they are also groups of individuals and multitudes. These act as units, and as characters they have moral and intellectual unity. Yet always they are groups and multitudes.

Again, more often than not a scene in history is repeated in various places and with variations before the next scene in dramatic order is enacted; and always an entire act is repeated. Act two (mediæval history) is a repetition of act one (ancient history), with variations. Act three (modern history) is a repetition of act two, again with variations. This is the basis of fact for the saying that "history repeats itself."

At Memphis a company of priests marches solemnly in processional. They proclaim themselves Masters of Mysteries and Men of Vision. They have been instructed in the wisdom of the past; they foresee the future. They know what signs presage abundance and famine, what conduct of man pollutes and what cleanses the sources and streams of life. Now they warn the people of impending peril. Boatmen from the south, confirming rumors that for months have passed from lip to lip, have reported abominations. Dwellers up the river, corrupted by too much contact with heathens beyond the Cataracts, have adopted strange rites, not to be described. They have defiled sacred places and killed sacred animals. Warnings have multiplied. Thousands of ibexes have died. Dead crocodiles float by. The river itself has an unusual and sinister look; many persons have observed it. Already, perhaps, the Valley, and the Delta too, lie under a curse. Pestilences and more dreadful plagues may stalk the streets tomorrow.

The people clamor for action. The King has had dreams and is impressed. Soldiers are assembled and mobilized. A defensive-offensive expedition sets forth. The land must be purified.

Skirmishes become battles and battles wars, which recur.

The curtain falls on United Egypt; but the priests are not as happy as they were. The army has become arrogant. The people never tire of cheering it, and sometimes the King defers to it, instead of to the priests.[1]

A later scene, perhaps a variant of this one, or it may be a second, is set in Sumer.

Caravans from the Crescent bring disquieting tidings. Successive droughts have parched the oases and dried wells never before known to fail. Even in the wadys of the West-Arabian mountains crops have failed, and cattle by thousands have died. Tribes of Semites, apparently migrating, have been seen moving eastward, a fierce and uncouth rabble. Companies of armed strangers, a vanguard perhaps, have been in the Plain of Shinar but have disappeared. They were thought to be from the desert. The older camel men, however, recall that Semitic nomads have been herding in Mesopotamia time out of mind, "always," some say, but others deny this, asserting that all Semites were oasis men once, or, more likely, wady men. Either way, they have been rovers apart in petty groups, and beyond stealing cattle or looting a village now and then, harmless enough. Yet nobody knows how many of them could come together in a round-up, or what might happen if the devil got into them.

It happens. That pillar of dust on the western sky was not caravan dirt this time; but the warning was too short. Wave upon wave, countless, tumultuous, the Semites come, spearmen and swordsmen, frenzied as charging cattle, and as resistless. Ur is theirs. Eridu falls before them. Nippur will be theirs, and Babylon.

Now let us drop the figure of the play and more simply summarize action, from this point on.

Two tremendous movements surge upon each other while sweeping onward together. One is the *group struggle* for dominion and subsistence. The other is the *class struggle* for

[1] The certified records on which I should have been glad to base my reconstruction of this scene have unfortunately not been found! Nevertheless, historical friends will grant, I hope, that my imagination has not run quite wild in the suggested explanation of rudimentary political integration and the beginnings of class struggle.

ascendancy and revenue. These two movements begin with history. They are the action of history.

Climatic crises,[1] exhaustion of resources, diminishing returns and other circumstantial pressures cause migrations, in which populations clash. The issue is life or death. Groups confederate for defense; by conquest they are consolidated. They are compounded and recompounded. They integrate and are integrated.

Military leaders, selected and developed by war, become powerful politicians if war continues or often recurs, and army officers become a class, as "class conscious" as the priesthood. They contest the ascendancy of the priests. The struggle is long and bitter. The priesthood is jealous and alarmed. The army is envious and aggressive. The army has booty and land to divide, but it wants to be assured of supernatural sanction. Above all, being new, it wants to become respectable. The priesthood has traditions and form. It can make things right with unseen powers, or wrong. It can confer respectability, or withhold it.

The possibilities of the situation are not obscure, and when priests and soldiers both grow weary of strife, an understanding is arrived at which royalty, properly instructed, consents to and decrees. Distinguished priests are "let in" on the ground floor of the New Privilege. They receive lands and revenues. Distinguished soldiers are vouched for as divinely guided, and get invitations thenceforth to convocations. So (historically) are begotten "lords temporal" and "lords spiritual," and both kinds are landlords!

Old groups of land-owning kinsmen, and individual land owners, if they are fortunate, become free tenants. An increasing number of these, if the times favor, become merchants. Old communities of dependents continue to be serfs. Artisans, if fortunate, become free tenants and enjoy guild privileges. If merchants prosper, they become class conscious (as the soldiers

[1] Most fateful of all, short of a far-extending glaciation, has been "the pulse of Asia," an alternating irrigation and dessication of regions east of the Caspian Sea, as the snow-fall on the mountain systems is rhythmically heavy and light; See Huntington, *The Pulse of Asia.*

did), and intimations of a new class struggle—between merchants and landlords—appear.

From the morning of history in Egypt and Sumer until Justinian's reign, group integration is almost continuous, and the class struggle is taken up by successive classes. In the Mediterranean Island area, as in the river valleys of the Southeastern area, in the West-Asian uplands and in the North Mediterranean peninsulas chieftaincies become kingdoms, and kingdoms empires. Priests yield to soldiers. Priests and military adventurers, inventing the "gentlemen's agreement," become landlords. Landlords lay field to field, but the merchants, amassing wealth, prepare to contest ascendancy.

Then there is a break. The empire collapses. Act one of a drama has closed. Ancient history ends, and mediæval history begins. The cycle of group and class struggle starts anew.

A new religion has arisen and a new priesthood. From the death of Constantine in 337 its divine authority is conceded. At the birth of Charlemagne in 742 its social ascendancy is complete and unquestioned. But the northward thrust of the Moors and their repulsion has set going changes that will compel it to fight for its prestige. A new militarism grows prodigiously under Charlemagne and his successors. Unwittingly the Church abets it by demanding that the Holy Land be "purified" from Islam. Crusading barons become more powerful than titular princes, and their followers become armies. They make their own terms with bishops. The Holy Roman Empire and the Bishops of Rome both assert "sovereignty," but in the end the inevitable bargain is struck. A new and overpowering landlordism is created. Bishops and barons become "peers."

The ablest of them, William of Normandy, with the intellectual and ecclesiastical aid of Lanfranc (whom William, after quarreling with for opposing the ducal marriage to Matilda, has made Archbishop of Canterbury), creates out of English chaos the first politically sovereign western nation, by reorganizing the relations between feudal society and monarchy and putting monarchy indisputably on top. Under his incompetent successors the barons get on top and resolve society into anarchy. Henry II, instituting scutage and the assize of arms and thereby making royal revenues

and the army semi-independent of baronial favor, and subordinating ecclesiastical to civil courts, lifts monarchy from personal rule to trusteeship for a nation. So begins a struggle as sharp and distinctive as any struggle between group and group or between class and class; a struggle, namely, between an integral group—the nation—and whatever class is ascendant. The first clash is disastrous, for again the barons get on top, and society disintegrates. Group and class struggles revert to beginnings, and mediæval history ends.

Mediterranean Christianity came to birth among humble folk inclined to communism, and was adopted by the great when they saw its stupendous possibilities as an agency of social control. The more carefully the origins of Northwestern Christianity, otherwise Protestantism, are studied, the more nearly certain it appears that these are not so much a vision or a hope of the miserable, whether docile or rebellious, as an assertion of personal independence by men self-reliant and self-respecting, although poor. Therefore, while in substance of theology this religion of the individual conscience is not new, and as rebellion against authority is schism, as reaction to life it is a new faith, engendered by new actualities of the struggle for existence. That fourteenth-century "Poor Richard," William Langland, the persistent Wyclif and the fiery Huss are all, in their different ways, true exponents of its spirit. And this is why, notwithstanding the doings at Constance and at Basle, its ministry does not become a priesthood.

Nevertheless, with this spirit, with this new faith and its ministry, modern history begins—in the fourteenth century. The group and the class struggles of ancient and of mediæval history are recapitulated, but, as always, with variations. A new militarism, developed by the Hundred Years War, uses gunpowder. A new landlordism is sustained by money rents instead of by feudal services, and this time the part played by religion in the class struggle is new. The Protestant ministry is not yet socially ascendant, and not strong enough to exact privileges. Moreover, it has been recruited chiefly from commoners and the lesser gentry, and its individualism is "middle-class." Therefore it allies itself with the merchants and becomes a factor in the incipient class

struggle between them and the landlords. The major alliance, accordingly, is between landlordism and the older ecclesiasticism, and the major intra-group struggle is between this combination and the nationalistic monarchy. It ends (except for brief recrudescence under Mary and again under the Stuarts) in the firm establishment of nationalism and the ascendancy of Protestantism under Henry VIII.

Now, at last, class struggle between merchants and landlords assumes full proportions and (without violence, however) intensity. Voyages of discovery open new and unprecedented opportunities, and merchant adventurers become men of power. But, like the soldiery of earlier times, they crave and demand full social recognition. They can make terms, and the bargain is struck. Great merchants are admitted to the peerage, and by marriage (and otherwise) peers in need of revenue acquire wealth. A capitalist class is created.

So modern history arrives at noon. Capitalism exploits invention and revolutionizes industry. A wage-earning proletariat, descended from emancipated serfs, becomes in its turn "class conscious," and Karl Marx makes the epochal discovery that class struggle impends—in history!

The creative efforts of history are concentrated upon one comprehensive achievement, which is, attainment of a preferred way of living. The means of attainment are culture and a social order. Culture includes taste, a standard of living, knowledge and skill. A social order is a system of pluralistic habits, relationships and policies. Prehistory gropes, perceives, tries, learns and with infinite patience practices. It creates the elements of culture and primitive social systems. History scrutinizes, criticizes, rejects, selects, conserves, changes, adds, combines, reforms, revolutionizes and reconstructs.[1]

The history of culture no less than the history of action, is a story of strife. The New has fought with the Old for its life. Instinct, habit, taste, sentiment and vested interests have rallied

[1] The study of history as achievement (history as scenario, play and story being presupposed) is the study of the History of Civilization, a specialist's task, demanding among other qualifications a sociologist's knowledge of social systems.

about the Old. Experimental drive, cleanliness, convenience, comfort, health, enterprise, prosperity have been identified with the New.

The Old has not been content to conserve its own: it has tried to strangle the New at birth. Therefore the conflict between the two has been a war for the right of achievement to survive; to live on as the Old, to be born and to carry on as the New. Civilization exists because neither the Old nor the New has been able to do its instinctive or its premeditated worst against the other.

More than those things that constitute heritage (of which mention was made) has been at stake. Heredity has been at stake. The intellectualized variety of man (irrespective of race) has been subjected to an artificial selection as fateful as natural selection. Where innovation is not permitted, experimental intellect cannot leave posterity.

Our knowledge of the origin, structure and functioning, and of the transformation of social systems, is largely a scientific induction.

There are surviving examples of social systems that never have produced and that will not leave a written history. They have been much observed, fortunately, by ethnologists; and possibly they may so far be neglected by powerful peoples bent on cleaning up dirty neighbors that they can be studied a generation or so longer. Social systems now extinct were observed and described in antiquity, not, indeed, with scientific precision, but often shrewdly and with approximate accuracy. The social systems of prehistoric men we imperfectly reconstruct from archaeological and philological fragments, supplemented by folk ways and folk lore that survived into historical days. This evidence, as far as it goes, is often worth more than chronicles, since it is without bias, and came into existence without conscious intent to impress posterity. All of these systems, extinct and surviving, that did not and do not leave written annals, we describe collectively as primitive social systems.

By comparison with the highly complex social systems that we know today primitive social systems are almost incredibly simple; but some of them are less simple than others. There is a suc-

cession of types, each of which is associated with a characteristic situation or habitat.

First in time and simplest in structure is a social system of the forest habitat and the bush. In its rudimentary form it is a small horde or camp or a cluster of neighboring and more or less communicating hordes, in none of which more than twenty to fifty individuals, men, women and children, can be counted. This group knows nothing of blood relationships, or it ignores them; it coheres by instinct and habit.

Within it, however, arise ideas of mysterious influences and relationships. Various things and kinds of things are believed to have an uncanny power to harm or to benefit. "It," for so more often than not the mysterious power is referred to, can cause good or bad luck; it can pollute; it can cause sickness, and it can kill, or it can cleanse and heal; it is contagious, passing from object to object or from person to person by contact. It is "mana" or "virtue"; it is demoniac power. Whatever holds or imparts purifying and healing mana is sacred; whatever holds or imparts defiling and evil mana is accursed. There are ways of banning evil mana and of conserving good mana. These rituals as much as habits of camping and wandering together, are group ways; they are modes of pluralistic behavior in distinction from individual behavior. In each group they are more or less peculiar. They are, therefore, a collective interest and bond supplementing mere animal gregariousness, including its reactions to cries and calls. They are a distinctly human interest and bond.

Out of these ideas and practices totemism emerges, and presently appear more complicated relationships identified with it. These get mixed up with natural relationships, which thereby become distorted and conventionalized. There results a social system of inclusions and exclusions, based on a recognition of descent in one line only. A matrilineal and matronymic system is in general more primitive than a patrilineal and patronymic system. How far the cavern people of the Reindeer Age had advanced in these matters we do not know.

The social system of the grass-lands has become or is becoming patrilineal; but it carries along many survivals of totemism and of

matrilineal relationship.[1] Ideas of ghosts and ghost worship have appeared, and out of them ancestor worship develops. Paternal power and authority have superseded the authority that maternal uncles exercised in matrilineal society, and the family group, cohering for more than one generation, often becomes a patriarchal kindred. Whether this happens or not, the patrilineal system has the great advantage that the fighting men of any considerable aggregation are of one conventional kindred, instead of being, as in matrilineal society, of as many different conventional kindreds as they have totemic or clan mothers.

On the grass-lands appears also in the course of time a new social system as distinctive as systems based on conventionalized kinship are, or as the earliest ritualistic system was by comparison with an animal herd. It is based on an understanding between a luckless individual needing protection and a man powerful enough to protect him. In primitive society men get "kin wrecked" in many ways. Because of their own misdeeds they are banished from clan or village, or the groups in which they were born are plundered and broken in war. Other men, a smaller number, become powerful as successful leaders in war or when, in recognition of one or another service to the group, they are permitted to possess an exceptionally large share of booty or otherwise to become rich.[2] In the grass-lands ruined men take service and receive protection as cowboys under cattle owners strong and self-assertive enough to break folkway rules and override the rights of fellow tribesmen. In the Brehon Laws of Ireland, where the grass-land life survived until comparatively late times, we have the picture of a society organized partly as a holdover tribal system and partly as allegiance and service rendered to a protecting chieftain.[3]

The social system of primitive agricultural communities is a medley and compromise of survivals rather than a new type.

[1] Robertson Smith, *Kinship and Marriage in Early Arabia.*

[2] The evidences brought together by Robert Lowie in *Primitive Society* that private property and inequalities of private property exist in primitive societies of every cultural grade and in every part of the world have disposed of a long controversy, to the lasting discomfiture of propagandist vendors of primitive communism.

[3] Henry Sumner Maine, *Lectures on the Early History of Institutions.*

Kinship is cognatic as far as recognition of relationship by both mother and father goes, but is usually patronymic. A kindred may cohere as a local group and hold land as an undivided possession for four generations, and, as was mentioned on a foregoing page, it may stand in the relation of protector to a heterogeneous group of dependents. Within the kindred itself inequalities of rank and of condition exist and are recognized; among the dependents they are not permitted.[1]

Survivals of all primitive systems, namely, those based on religious solidarity and ritual, those based on a conventionalized kinship and those based on *beneficium et commendatio,* are numerous in present-day societies. The most interesting ones, perhaps, are found in such laws of nationality as the *jus sanguinis* and the *sacramentum fidelitatis,* whereby a claim to citizenship rests, in one case, on the citizenship of a parent, and, in another case, on an oath of allegiance to a sovereign.

All the social systems of civilized peoples, whether ancient or modern, are variants of a fourth general type. Indeed, in the strict etymological meaning of the word, civilization is the superseding of tribal by civil society. Within the city aliens congregate and prosper until it becomes necessary to admit them to privileges and to impose upon them such fundamental obligations as tax paying and military service. After much experimenting they are naturalized, that is to say, by a legal fiction they are made of one kindred with the older stock.[2] The basis of this system is mutuality of opportunity and of obligation.

The historical variates of this general type are familiar and need not detain us longer than is necessary to make essential discriminations and to point out their relation to group and class struggles.

Society is an aristocracy as long as opportunity, although shared, is not equalized, and control is retained by a privileged class, qualified by ability and experience to govern in the administrative sense of the word, but not by unselfishness to rule

[1] Frederic Seebohm, *The Tribal System in Wales;* and Hugh Seebohm, *The Structure of Greek Tribal Society.*

[2] *The Constitution of Athens,* discovered by Dr. Budge and by him attributed to Aristotle.

arbitrarily over fellow men. Society is a plutocracy as long as opportunity, although shared, is not equalized, and control is held by a capitalist class. Society is a kakistocracy as long as opportunity, although proclaimed to all, is not equalized in fact, and control is exercised by a dictating minority, undisciplined and ignorant, that has seized power by revolutionary violence. Society is a democracy if opportunity is equalized and control, although not equalized (a thing impossible), is shared. Democracy is communistic if property is equalized and occupation is prescribed. Democracy is socialistic if property in major part is held collectively and occupation is prescribed. Democracy is individualistic if property in major part is held individually but is subject to prescribed obligations and limitations, and if occupation is freely chosen by individuals but, like property, is subject to prescribed obligations and limitations. The distinction between democracy and all other social systems is radical. In a democracy control is participated in although never equally exercised by all members of society instead of being monopolized by any group or calling, and, consequently, integral society dominates over all its component groups, constituent classes, callings, factions, parties and miscellaneous minorities.

Without specialized callings and segregations, differentially functioning, society is primitive and negligible; it can achieve nothing; and yet from the moment that differentiation of a population into variously functioning callings or segregations begins, class struggle rages. A dominant minority or majority rules as nearly absolutely as it can. Revolution overthrows it, destroying in its leveling violence so much of the functioning social organization that prosperity cannot return, or achievement proceed, until differentially functioning fractions, specialized and unequal, are recreated. Democracy is an attempt to equilibrate energies in a less costly way. Communistic and socialistic democracies err by equalizing too much and restraining too much. Anarchistic individualism errs by permitting excessive inequalities and restraining too little. Between these extremes are possibilities of a more delicate equilibration in a Socialized Individualism acting through unstable majorities subject at every instant to possible disintegration and reformation.

It is time to get back to theory. I promised to intimate and perhaps gently to argue an interpretative hypothesis or, if the phrase is not presumptuous, a scientific explanation of history. If any reader has followed me so far, he has already received and apprehended the intimation. My argument will be a generalization (without contention) from the materials that have been exhibited.

Here let me anticipate and answer a question. Are these materials *history?* No and yes. Quantitatively they are infinitesimal, but qualitatively they are bits picked out of history by a scientific test, namely, significance. They have indicative quality and therefore scientific value. They are *signatures* of history.

More and more our inductive science accumulates priceless knowledge of things (and events) in themselves inaccessible, by examining their marks or signatures. The astronomer knows the chemical composition of suns unimaginably distant because they have made their "mark" in lines of the spectrum. No physicist has seen an atom, but every physicist reads in atomic signatures that it is composed of positive and negative electrons, and that the electrical charge of a positive electron may be numerically equal to the electrical charge of a negative electron, although its mass is nearly two thousand times greater while its diameter is only one two thousandths as great.[1] The materials from which I am generalizing now are finger-prints of history on the smoked glass of time.

The geographical theory of history is true, as far as it goes. Civilization arose in regions that could sustain and energize dense populations. It has never made headway except in regions that could sustain and energize urban populations. Throughout the first nine-tenths or more of total historical time the action of history was confined to the Mediterranean Basin. That basin is made up of characteristic areas. In each a distinctive civilization arose. In each the action and the achievements of history have been distinctive. So long, however, as physical environment has remained static nothing has happened. Only when environmental change has created a circumstantial pressure of calamities,

[1] MacMillan, *Science*, July 23, 1920.

hardships, contacts, conflicts and rivalries, has there been collective human action and with it integrations, differentiations, cultural progress and social evolution.

The biological theory of history is true, as far as it goes. The historical peoples have been stocks capable of persistent multiplication and at the same time of variation and longevity. In other words, they have been dynamic stocks. In a struggle for existence that has been terrible and remorseless they have held their own by vitality and by adaptability. Also, to an extent not adequately apprehended, they have been, unconsciously, eugenic breeders. By taboos and conventions, by pride and arrogance born of success, and by the social exclusiveness of dominant classes, they have restricted hybridization and effectually prevented that miscellaneous and general amalgamation which the biologists call panmixia. Natural selection, therefore, has had not only individuals but also relatively pure stirps to work on, with the inevitable consequence that, through an elimination of biologically inferior stirps *as such,* energy, character and intelligence have been conserved for generations. Whether a subsequent indiscriminateness has now and then caused national decline, is a question more difficult to answer. The one certainty is that, irrespective of theories, the instinct of persistently vigorous peoples has been against it, as it is now in England, Canada, Australia and the United States.

True also, as far as it goes, is a psychological theory of history that has never yet been well formulated. It is not well described as a theory of collective self-determination, although that phrase is not wholly inaccurate. The historical peoples have been capable of imagination and of persistent exaltation. They have seen visions and dreamed dreams. They have been aroused by enthusiasms. Much that they have seen has been hallucination, and often their enthusiasm has gotten out of hand, but among their visions have been discoveries and inventions, and among their exaltations have been heroic devotions. Supreme among these, as a factor in human achievement, has been the devotion of a few peoples, of whom the Greeks were first in time and in degree, to an intellectualized civilization.

An anthropological theory of history that of late has been a

factor in world politics has most mischievously confounded biological, psychological and cultural facts. Baltic stocks have displayed conquering energy and dominating will, but their culture has been derivative. Wherever they have gone they have mingled with populations of predominantly Mediterranean characteristics and have assimilated a Mediterranean culture. It is preposterous to argue that the predominant part which composite populations so originating have played in history should or can be accounted for by hybridizing or by Baltic culture or by Baltic domination. It can be accounted for only as an exploitation of Mediterranean culture by Baltic energy civilized by the Mediterranean culture. Achievement is the historic work of races capable of ascendancy through culture.

A sociological theory of history might be formulated but has not been. The historical peoples most distinguished for achievement have somehow been able more successfully than others to balance integral against partial interests, and individualism against collectivism.

All of these theories of history are true, as far as they go, *but not one of them accounts for history!* One and all they account for conditions that have shaped history, or, at best, have made it possible. Not one of them tells us why it has been actual.

For, when all is said, history is human behavior. It is a stream of behavior, rising obscurely in time, making for itself a devious channel, fed by countless tributaries of collective action, and broadly flowing now into the mist that hides an unexplored hereafter.

In part the historic behavior of men moving on together by thousands and by millions has been blindly instinctive. In part it has been a conscious but errant experimentation. Also in part (and increasingly) it has been an attempted and often a successful carrying-out of premeditated policies. These have been made by no one man, and for this reason, rather than for any "deterministic" reason, the great-man theory of history breaks down. They have arisen as visions in the minds of the men of vision and have then been taken over, with or without acknowledgment, by men of action. To convert them into collective behavior the men of

action have "interested" and enlisted effective members of groups, classes, factions, parties, minorities and majorities, promising them substantial advantages. The combination has been a dynamic *plurel:*[1] a "gang," "ring," or "junto" bent on "going somewhere" or "doing something." Inasmuch as it has accomplished, first and last, infinitely more good than evil, let us give it a dignified and suitable name. It has been a Composite Protagonist. To an appreciable extent it has "made" history, proceeding deliberately, and by every art of persuasion, temptation, bullying and coercion known to man. It has started wars and class struggles. It has been self-renewing until supplanted by a rival, destroyed by failure, subjected by conquest or deposed by revolution.

As participants in the behavior that is history the instinctive multitudes, the errant experimenters, the clear-eyed and far-seeing protagonists of premeditated policies have had in common one trait besides their elemental human nature; or has it veritably been their human nature itself? Either way, they have been of one inclusive kind. *All have been adventurers.* All have felt an urge and responded to it. They have dared and gone forth. They have listened to pipings and followed lures. They have dug for pots of gold; climbed purple mountains. They have fared on pilgrimages "to meet with joy" in any "sweet Jerusalem." They have trekked and voyaged; have fought, and plundered and avenged. They have fashioned empires and dismembered them. With infinite toil they have created social order, and in drunken deviltry have destroyed it. They have read the stars and rent the atom.

History, then, is adventure, *and the urge to adventure is the cause of history.* This proposition is the kernel of my theory.

Enfolding and sustaining it is the coefficient truth that some men, the *daimones* of our race, react to the urge promptly, abundantly, persistently, effectively, and in doing so pour or radiate a secondary or converted urge upon more sluggish men until they too react effectively. Paradoxically and amusingly this one specific affirmation of inequality among men is not denied by

[1] Our English derivative from *pluralis* has in usage an adjective value only. Needing a noun, I fall back upon this pleasing old French form.

egalitarians. The wildest social lunatic has never imagined, or liar for a holy cause averred, that *as adventurers* men are equal. On the contrary, each is more sure than of anything else in life, that he at least, is an adventurer of parts, destined at some time to lead a multitude of small adventurers—somewhere!

In sum, and to be severely scientific (as scientific as Mr. Adams is) equilibration of the urge to adventure and of reaction to it is the historically behavioristic mode of the degradation of energy.

As far as I can see there is one sufficient reason for being so accurate, and abbreviate. It is the short way to get back to history as reality, concrete and alive. As reality history is theme and story. The theme is actuality, the story what we make it. Scholarship—a kind of morality—has corrected our story of history in point of veracity, and (so all things work together for good to such as love truth) amazingly enriched it. Science has discovered and revealed actuality. Unspoiled by knowledge and unharmed by understanding, actuality is what it was to Odysseus and to Columbus; story is what it was to Herodotus and to Froissart. As actuality history has been and is, Adventure; as story it was and is, and to the end of time will be, the Great Romance.[1]

[1] This chapter was in type for publication in *The Political Science Quarterly,* before the publication of Mr. Wells's *The Outline of History.*

CHAPTER VI

THE HISTORY OF SOCIAL THEORY

NEARLY two and a half thousand years ago Clinias the Cretan, Megillus of Lacedæmon, and their Athenian friend, who, we surmise, wrote *The Republic* and *The Laws,* sauntered along the way that led from Knossos to the cavern temple of Zeus. Loitering from time to time in the groves of cypress trees, they discoursed upon the question whether from the gods, or from the merely finite minds of mortal though gifted men, have proceeded chiefly those customs, rules, or laws which are the foundations of moral order in the state. As their dialogue flowed on, it revealed a sophisticated knowledge of affairs and a nicely graduated caution in generalization which proclaimed each one of the three to be that rarest and most excellent of beings, the philosopher who is also a man of the world. The vulgar view that laws are a gift from the gods they well understood; and that in a sense it could be accepted as true they acknowledged. The not less vulgar view that the mortal lawgiver has on the whole improved upon the lawmaking of the gods, they likewise understood; and that this view also in a sense is true, they acknowledged no less freely. But as they themselves viewed the complicated relations of man to his fellowman, his passions and his reasoned purposes, his manifold deeds of evil and of good, and called to mind the varied plans of social organization which they had observed in the city states of their own Grecian world, they for themselves interpreted the divine lawgiving not as a proclamation from the throne of Zeus, but rather as a certain objective conditioning of individual and collective life by a thousand fortuitous forces to which man must accommodate his conduct. And the lawmaking of man they viewed as essentially the art of perfecting this accommodation of human conduct to objective facts and relations.

Their phrasing of this naturalistic philosophy was simple and straightforward, and admitted of no misunderstanding: "I was about to say," remarked the Athenian, "that no man is ever a legislator; but that fortune and all kinds of accidents happening in all kinds of ways, are our legislators. For either a war by violence has overturned polities and changed laws, or the want of means arising from severe poverty. Many innovations, too, diseases compel men to make, through pestilences falling upon them, and unfavorable seasons through many years. He, then, who foresees all this, will be eager to exclaim, as I just now did, that no mortal man was ever a legislator, but that nearly all human affairs are accidents. . . . On the other hand, it is equally possible for the person to speak correctly on these points who says . . . that although a god, and, together with a god, fortune and opportunity, govern all human affairs; nevertheless it is necessary to admit that art, a somewhat milder power, follows them." [1]

Thus, in the land of the Gortynian law, where civilization millenniums old had begun perhaps as early as in Egypt or on the Babylonian plain, was stated the profoundest problem of social philosophy—may I not say of all philosophy—the problem of the interplay of human purpose with that external fate which we moderns call the reign of natural law, the question how far the collective life of man is inexorably determined by the one, how far from time to time it may be shaped anew by his own clear-seeing reason and indomitable will.

Before we take up the question how far the solution of this problem which satisfied those men of Crete, of Athens, and of Lacedæmon, can suffice for us, whose intellectual standards have been both shattered and recreated by the new-born science of our later world, let us linger yet a moment more on certain further words in which they set their meaning forth. So strongly did they hold that man by constructive reason may create institutions potent to perfect his life, that they themselves were then devising a body of laws for an ideal commonwealth. And yet they held steadily before their minds the truth that their dreamed-of republic, if it were in fact to exist, must be composed of certain nat-

[1] Plato, *The Laws*, IV, 4.

urally coherent elements, and must conform to unalterable objective requirements. Once more I quote, and again it is the Athenian who speaks:

"For when a colony is of one race, and has the same language and the same laws, it possesses a kind of friendship as being a partaker in the same holy rites, and everything else of a similar kind, nor does it easily endure other laws, and a polity foreign to what it had at home. . . . But, on the other hand, a colony, composed of all kinds of people flowing together to the same point, will perhaps be more willingly obedient to certain new laws; but to conspire together, and, like a pair of horses, to froth together, as the saying is, individually to the same point, is the work of a long time and very difficult." [1]

In no later writing that I know do we find in so few words so many cardinal generalizations as these lines contain upon the nature and behavior of human society. They tell us, first, that of two familiar groupings of human beings, namely, groupings of kindred, and groupings of "all kinds of people flowing together to the same point," the second or miscellaneous grouping is no less spontaneous, no less natural, than the first. Secondly, they tell us that in the ethnically homogeneous group there is a psychological as well as a physical unity, a sympathy and understanding not to be looked for in the heterogeneous group. Nevertheless, as thirdly, they aver, not only in the homogeneous but also in the heterogeneous group, notwithstanding its defective mental unity, there is a collective behavior, which, however,—and this is generalization fourth—is more slowly and with greater difficulty in the miscellaneous group raised to the practical working level of collective action for the attainment of a common end. Fifthly, and finally, they declare that innovation—any voluntary breaking away from an old order of things to experiment with a new—is more likely to occur in the heterogeneous than in the homogeneous group.

Two thousand years of so-called progress have enriched and broadened knowledge. They also have multiplied the absolute number, possibly the relative number, of well-informed persons. They have multiplied, further, the relative as well as the absolute

[1] Plato, *The Laws,* IV, 4.

number of scientifically trained minds. That they have evolved individual intellects of greater power or of higher quality than were the best minds of Greece cannot be demonstrated. That they have multiplied the absolute number of men of genius is probable. That they have multiplied the relative number of gifted intellects is possible, but not certain. The civilization of Greece, in fine, was like some marvelous mutation in the realm of organic life, the advent of a new and glorious creation. Modern civilization is but the multiplication of its offspring. There has not yet appeared a nobler type.

Our one undeniable superiority, then, is a fact not of inherent quality, but of acquisition merely. It is our fuller and more accurate knowledge and, underlying our knowledge, our more complex, our more rigorous methods of investigation. It is, in a word, our science.

In the light of our fuller knowledge it may be of interest now to reexamine the Grecian conceptions of collective life, of the nature, the origins and the uses of society, as the men of natural science, on their part, have reexamined, corrected and restated the Greek conceptions of the material world and of individual living things. Applying our stricter canons of scientific method, let us raise anew the questions of which Plato and his friends discoursed.

The continuity of all phenomena, within the limits at least of finite space and of finite time, is the master conception of our modern thought. There is no drifting molecule of dust that does not beat with impulse from solar systems very far away. There is no living thing that is not related in bonds of kinship to every other living thing. There is no conscious thought that has not a history which, if told, would be the story of all existence from eternity. There can be no theory, then, of any thing, or group of things, of any change, or series of changes, which is not a coordinate part of universal theory. Each science must not only be compatible with every other science, but, inseparable from every other, it must with them complete the unity of knowledge. Moreover, in every science the verdict of reason must accord with the verdict of sense perception. This accord, indeed, is the very

substance of science, the innermost essence of verification. Science cannot identify or measure truth by standards of utility. It can only declare that this observation, or that generalization, accords with, or stands in conflict with, other observations, other generalizations. It may make for pleasure. We believe that in the end it will. For the moment it may contribute only pain. With either result the scientific man as such has no concern.

Accepting this conception of scientific knowledge as the basic standard from which to judge the pretensions of any explanation or theory of collective life, we expect to find, and we do in fact find, that many sciences have something to contribute to the systematic analysis and interpretation of human society.

The natural groupings of human beings which are the bases of their community life are in no important sense unique. From botany and from zoology we learn that these groupings are common to all living things. The patches of lichen, the beds of moss, the forests of pine or of oak, the swarms of bees, the hills of ants, the shoals of fishes, the flocks of birds, the bands of squirrels, the colonies of beavers, the villages of prairie dogs, the herds of wild sheep, of antelope, of wild horses and wild cattle, the bands of monkeys, the tribes and nations of men, form an unbroken series of aggregations. In like manner, collective behavior is a phenomenon not peculiar to the human species. Comparative psychology assures us that from such simple beginnings as the simultaneous reaction of protozoöns to mechanical pressure, to heat, to light, to electricity, or to chemical action, up through the subinstinctive mutual aid of the ants, the sympathetically concerted action of pelicans in fishing or of wolves in hunting, to the deliberate cooperation of Australian savages in corroboree, or of Tammany braves in a political campaign, there is no point at which we can draw a line and with certainty say: Here mere physical response of irritable matter to a stimulus passes into cooperative instinct or here cooperative instinct, in its turn, passes over into a reasoned cooperation.

The race of man, however, is more highly differentiated than any other species of living things, and the wide range of human variation, both physical and mental, which anthropology describes, has determined a marvelous diversity of kind and of degree in the

social groupings of human beings. Between the feeble hordes—the shifting camp-fire groupings—of primitive savagery, and those great aggregations of men in the Mediterranean Basin who, with infinite toil, laid the prehistoric foundations of civilization, archaeology reveals endless gradations, while the peoples who upon these foundations have builded with political art the empires whose story the historian repeats, have played the drama of collective life with endless variations.

And throughout these gradations, this range of variation, there is order—the genetic order of evolutional change, the balanced order of correlation. The presumption which biology establishes that the reign of natural law extends to every realm of the world of life is confirmed by the sciences of social phenomena. The economist, the student of comparative jurisprudence, the investigator of comparative politics, one and all assure us that the collective conduct of men is not fortuitous. The values of the market-place rise and fall, the activities of commerce ebb and flow as the tides of the sea. Law proceeds from law with the regularity of a birthrate. Parties and policies arise, flourish, and are lost in new issues with the sweep of a geometric curve.

There is, then, we must conclude, no branch of modern science which does not contribute something to the theory of man's social relations, and there is no aspect of these relations which may not be illuminated by any scientific discovery. Obviously, it is not only the structures and the functions of living things regarded as individuals that have awakened scientific curiosity, but, as well, the groupings of individuals and their collective behavior have fixed the attention of observers in many domains of inquiry. Under systematic scrutiny they have been revealed as legitimate scientific data, admitting of examination by scientific methods.

Quite as certainly, however, the possibilities of the scientific study of society have not been exhausted by any of the sciences thus far named. Beyond the questions that have been raised by biologist and historian, by economist and student of politics, there are fundamental ones that thrust themselves upon attention.

What, for example, is the process of group formation? What are its conditions? What, if any, are its limits? What types or kinds of groups or of groupings arise? Similar questions we are

compelled to ask about pluralistic behavior. How does it begin? What are its causes? What types or kinds of pluralistic behavior are there? How does it develop into collective behavior and then into concerted action for the achievement of a purpose? How far, under given conditions, does it take the place of individual action? To what extent does it become or does it create a constraining pressure upon the individual, in some degree controlling him and setting bounds to his liberty?

Again, when combined or collective action is long continued does it establish certain enduring relations among the individual actors participating in it, and are these relations that complex something which we call social organization? If so, what types or kinds of social organization may we discriminate? What are the stages of their genesis? What are their respective limitations? Do they tend to become fixed or rigid, or may they remain plastic, with a mobile and shifting membership?

Such questions provoke others. What consequences or reactions proceed from natural groupings and from collective behavior? It is commonly assumed that they create artificial conditions of security and opportunity. What, then, is their effect upon the process of evolutionary selection? What on the survival of any given race or stock? What upon the amplitude and the richness of individual life? What upon the character of the individual and of the race? In a word, does the character of the mass determine the character of the individual, or is individual character fixed and determinative of the mass? Or yet, perhaps, within ascertainable limits, does each determine the other?

Finally, there is a profound question of interpretation, the ultimate question of causation. From the political sciences we have derived conceptions of teleological causation. We have been led to think of man as a creator, fashioning his social relations as he would have them for the achievement of ends which he has visualized. From biology we have derived the conception of an ecological explanation. Life proceeds through an adaptation of organism to environment. Environment moulds the organism, provokes and directs its activities, and determines its fate. Is social evolution, in like manner, an ecological adaptation? Granting that it is, is it also an idealistic striving? How far, then, may

our interpretation of social relations legitimately be idealistic, how far must it be ecological?

Under careful examination these radical inquiries about social phenomena are seen to be closely clustered and correlated. Arising within a well-defined field of research, they are the problems of a logically organized science. Presupposing general psychology, presupposing also anthropology conceived as a special and concrete psychology of the racial varieties of mankind, and presupposing, finally, archæology and history, sociology—the general science of society—is the true scientific foundation of such special sciences as political economy, jurisprudence and politics. As such, it has little in common with that portentous science of all social things, good and bad, but especially bad, which has been invented for the sociologist by untethered intellects that live by describing things which the non-journalistic eye has not seen and defining things which have not entered into the merely academic mind to conceive. The sociology with which we are here concerned may be defined in the simple terms already used and repeated—as the science of the natural groupings and the collective behavior of living things, including human beings.

Social philosophy grappled in its youth with its most difficult questions, those, namely, of personal causation and of the action of society upon the individual character. This was not because systematic inquiry into the nature of society was a legacy from anthropomorphic ages. On the contrary, it was because it arose in that Grecian world where, for the first time, man had become in the true sense of the word a citizen, and had experimentally demonstrated that, through a free and plastic social organization, he could in a measure control his own economic and moral destiny. In Egypt and in Babylonia political integration, hastened and hardened by empire-making militarism, had brought all the eastern lands under a remorseless despotism. Peoples once free and happy had been so crushed by exploitation that hope itself had almost died within them. Despairing of redress at the hands of any earthly power, and distrustful of themselves, they could only create and embrace, according to their temperaments, the religions of resignation, or those of apocalyptic vision. In the Aegean

Grecian world geography and race had conspired to prevent a too rapid centralization of power. The city states were still free and proud. Man still believed in himself and respected his fellow man. Rejoicing in political as in artistic creation, loyal to the state which his own thought had fashioned, he believed that he could make it perfect, and thereby perfect himself. Therefore it is that the first comprehensive work on the nature and possibilities of human society which has come down to us from the past was the utopian *Republic* of Plato.

The imperishable contribution which this work makes to our reasoned knowledge of human society is found not in its communistic plan of life, but rather in its analysis and its correlation of moral and social forces; above all, in its actual solution of the problem of social reaction upon individual character. Assuming that man as a personal cause can in fact mould the commonwealth to his will, assuming also that the final end of endeavor is the attainment of a good life—which should consist substantially of those kinds and degrees of pleasurable activity that reason can approve of—*The Republic* demonstrates that the "good life," so conceived, after all depends upon a certain objective condition which reason and the human will may create, and which is called "justice." Moreover, reason and will cannot create justice directly. They can establish it only through the fine adjustments of a social order. Thus, in the thought of Plato, the "good life" is a function of "justice," and to maintain justice is the function of social organization.

It was but too obvious, however, to the men of Athens in its Periclean Age, as it is to us to-day, that not all society establishes justice, and that not all so-called justice yields the fruitage of good life. It was inevitable to ask whether the failure is wholly attributable to man's fault or weakness, or is caused in part by those vicissitudes of fortune which, as Plato himself admitted, finally govern all human affairs. It is to this problem that Aristotle turns in *The Politics,* in some respects the most masterful treatise upon human relations that has yet proceeded from either the ancient or the modern mind. Based upon an inductive study of one hundred and fifty-eight Grecian constitutions, it analyzes the nature and functions of the state, it classifies and

critically compares the forms of government, it exposes both the inherent and the adventitious limitations of each, and reveals the causes of political change, including revolution, that lie deep in human nature, in historical experience, in geography, climate and soil, and in other circumstances of external fact. Thus, while fully recognizing the creative part of conscious purpose, Aristotle carries explanation back to impersonal causation. He lays the foundation for an ecological interpretation. Inductive also in his method, where Plato is speculative only, his work is more strictly a scientific study of society.

While Plato was interested chiefly in problems of the social welfare, and Aristotle chiefly in the antecedent problems of social organization, they did not quite neglect a multitude of facts that are dynamically antecedent to association, as organization is functionally antecedent to welfare. Aristotle, especially, was curious about the nature of those bonds of feeling and purpose which hold men together in agreeable or useful organization, and in his chapters on Friendship, in the *Nicomachean Ethics,* he recognizes the importance of that sense of similarity, which, long before his day, had been expressed in the proverb that "birds of a feather flock together," and by Empedocles in the saying that "like desires like." Perceiving that this social sense is instinctive, he built the argument of *The Politics* upon the postulate that man is a political animal.

This simple theory of the social mind was both broadened and deepened by the disciples of Zeno. Alexander's conquests brought into one political system Thracian and Athenian, Asiatic and Egyptian. In the cosmopolitan atmosphere of the Macedonian Empire the brotherhood of man became for the first time a practically important fact, and stoic philosophy, reflecting upon the moral consciousness common to barbarian and Greek, explained it as the conformity of human reason to a universal reason immanent in nature. This interpretation goes to the bottom of things, for it is equivalent to the proposition that resemblances and sympathies have their origins in like adaptations of otherwise differing men to the same objective fact or universal law.

With cosmopolitanism, however, came individualism, and with it the final word of Greek philosophy upon the social relations.

Epicureanism, with its emphasis upon individual initiative and individual happiness, contended that the society is best which imposes minimum restraints upon the individual will. From this doctrine as a premise, the conclusion was inevitably reached that social and legal relations rest wholly upon individual self-interest, and the desire of each to secure himself against injury. The true origin of society was therefore to be sought in contract or consent. So the teaching of Plato and of Aristotle was turned about. The assumption that society creates and moulds the individual became the dogma that individuals, for individualistic ends, create society.

In the further development of social philosophy from these Greek beginnings, the historical evolution of society itself continued to be the chief formative cause. To the Roman mind, with its genius for political organization, the problems of organization in general made strong appeal. But the great achievement of Roman intellect was its analysis and correlation of the facts from which organization proceeds. The conflicts of mind provoked by conflicts of interest, the meeting or concert of minds, the emergence therefrom of contract, and the ultimate expression in law of the collective reason and final decision of the community—these phenomena were more completely understood and more accurately described by the Roman legal writers than by the Greek philosophers. While *The Republic* and *The Laws* of Plato tell us what laws ought to be, *The Republic* and *The Laws* of Cicero tell us what laws are and how they came to be. The Romans, moreover, by their conquest, incorporation and assimilation of many diverse peoples, acquired a knowledge never before attained of the ethnic composition and other physical phenomena of a social population that are determinative of the social mind, and to this day there are no better descriptive studies of some aspects of ethnic character and influence than Cæsar's *Gallic War* and the *Germania* of Tacitus.

The rise of the Christian Church and the extension of its authority from Rome to the remotest frontier of the secular empire offered to contemplation a new and magnificent social order. It presented new ideals of human well-being and a comprehensive organization. Claiming to be in truth that City of God which Augustine portrayed, it demanded recognition from

kings no less than from people as a universal society within which the secular state must henceforth take a subordinate place. To vindicate not only the historical, but also the rational claim of the secular empire over the ecclesiastical power, was the purpose of Dante's *De Monarchia.*

It was not chiefly by argument, however, that the conflicting claims of secular and ecclesiastical authority were adjusted. The secular state established its dominion by force, and thereby brought again into the foreground of consciousness the questions of social psychology. For political force is something more than the *vis viva* of a physical body. It is the conquering power of a political body, the cohesion and self-directing quality of which are not accounted for by instinct and sympathy only. It is a commanding because it is a commanded group. A chieftain speaks and followers obey. A prince rules and subjects render service. With amazing precision, Nicolo Machiavelli analyzed the psychology of this relation as it had never been analyzed before. The leader obtains obedience through his power to browbeat lesser men, to inspire and to awe. He is feared and revered not so much for his physical strength alone, as for his nerve, his resourcefulness and craft; because he is the fearless man in the midst of men who fear. Collectively they could make an end of him, but that is the last thing they would wish to do. For, deeper and more overmastering than their fear of him is their fear of a hostile world environing them and forever threatening their existence, and they have discovered that their man of iron is able to make that outer world fear him as they also fear. Loyally and without question obeying him, they are safe. They conquer and make their way, they build the state and extend its domain. The alternative is servitude or extermination. Therefore, the supreme duty of the prince is to maintain his authority. The supreme duty of the state, whether principality or republic, is to maintain its dominion and its vital quality of growth. Greek civilization was overwhelmed because the Greek ideal was a static perfection. Rome, expanding, became mistress of the world. Consequently, to the conduct of the prince and to the policy of the state, profounder standards than those of ordinary morals apply. Self-preservation through adequate power and ceaseless growth, is the

supreme law. The social order may not rightfully be permitted, for moral reasons, to disintegrate, as the Queen of Siam was left to drown because it would have been sacrilege to lay hands upon her sacred person. Machiavelli did not see in the struggle for existence all that Darwin was to discover in it, but he did grasp the tremendous truth that out of it springs social life, to be forever conditioned by it, and that no system of state-craft or of ethics which is constructed in lofty disregard of it can be other than childish.

After Machiavelli, it was easy for the political theorists, Bodin and Althusius, to construct their concepts of sovereignty and the state. Society, as Bodin taught, arises from instinct and is developed by experiences of the pleasure and utility of association. Within the bosom of society the state is created by force, and sovereignty is supreme political power "over citizens and subjects unrestricted by the laws." This conception was more simple than the facts, some of which Althusius more clearly perceived. Defining sovereignty as the supereminent power of doing what pertains to the spiritual and bodily welfare of the members of the state, Althusius argued that it inheres in the totality of the people and cannot be alienated or delegated. So conceived, sovereignty is the supreme form and expression of a social will, and as such it is the focal phenomenon of the social mind.

Demonstration, finally, that society and the state, a social will, rightful authority, and political power, have all one common and inevitable origin, was the achievement that Thomas Hobbes essayed. Writing in an age when royal absolutism was striving to maintain itself against popular revolt, Hobbes derived both society and sovereignty from a covenant whereby men in a state of nature escape from intolerable ills. Freely and gladly yielding their individual wills, men alienate their natural sovereignty, and the monarch or the parliament so obtaining authority rightfully rules absolutely, wielding force to any necessary extent. If any one has refused to join in the covenant, he has elected to remain in a state of nature which is a state of war. He therefore cannot complain if force is used against him. If, however, the titular sovereign fails to maintain his authority, society is resolved back into anarchy, and the social covenant must be re-made. Therefore

the revolution that succeeds is right. There is probably not in all literature, outside of the exact sciences, so complete an example of remorseless logic as *De Corpore Politico* is.

Its one vulnerable point, namely the premise, was perceived by Locke. Denying that the state of nature is one of war, or for any reason intolerable, since men of one blood and kindly disposed spontaneously aid one another, Locke contends that the people never alienate their natural sovereignty. A natural society, they forever are the state, the source and real wielder of power, although artificially by covenant creating institutions for utilitarian ends and delegating a limited authority to governments.

Like history, social theory had now repeated itself. From new utopias and the doctrine that the scope and character of social organization determine the quality of individual life, it had returned to the conclusion of Epicurus that individuals in a purely rationalistic way create society for individualistic ends.

Throughout this long development and in all the various phases that it had assumed from Plato to Locke, social theory, while not neglecting observation or ignoring external cause, had been on the whole speculative, or, to use Karl Pearson's word, "ideological," and its interpretations had been chiefly in terms of subjective causes, namely, motives and reasons. But from ideological beginnings, science, as Pearson contends, becomes in the second stage of its evolution observational, and, finally, in a third stage, metrical or quantitative and in a strict sense of the word inductive.

In Montesquieu's *Esprit des Lois* the speculative methods of the social philosophers are frankly abandoned. The work is descriptive and its conclusions stand or fall with the accuracy and sufficiency of concrete facts, from which the conclusions are derived by generalization. That this work, as judged by modern standards, is elementary and crude should not prevent our recognition of the service it rendered in turning attention to inductive method, in awakening interest in purely objective interpretations of social phenomena, and in stimulating by suggestion and example those researches which have accumulated for the use of scholars today an enormous mass of ethnographic and other

descriptive sociological material. Montesquieu converted social philosophy into descriptive social science.

Meanwhile, the beginnings of quantitative investigation had been made. Ancient states enumerated their populations for purposes of taxation and military service. The Roman census was taken at five-year intervals, and there were probably at least seventy such enumerations. The mediæval church kept records of marriages, births and deaths, primarily for the purpose of deciding disputed cases of kinship-degree barring sacramental marriage. The Domesday survey of England, ordered by William of Normandy, is an admirable document of descriptive sociology. Manorial records in many instances are accurate and detailed descriptions of local communities.

Masses of figures, as such, however, are descriptive only. They may be profoundly significant, but they yield their meaning only to interpretative analyses that involve the use of somewhat refined mathematical methods. The first step in this direction was taken by the astronomer, Edmund Halley, in 1693. John Graunt had compiled interesting tables of mortality, but had not derived from them any important induction. Halley drew up a life table from observations in Dresden, from which he demonstrated what proportion of all persons born in any given year would die or survive in each succeeding year. This was the first true inductive generalization of law in the realm of social phenomena. To the influence of another great mathematician and astronomer, Laplace, the subsequent developments of quantitative method in sociological research must in large measure be attributed. Laplace's marvelous mind ranged over the whole field of human knowledge. He drew about him the original and interesting men of his time. Among these was the younger mathematician, Jean Baptiste Fourier, whose monographic studies of the city of Paris revealed the possibilities of scientific inference from statistics of aggregation, of births and deaths, and of distributions of population by age and sex. The Belgian statistician, Quetelet, whose *Physique sociale* and *Sur l'Homme* were the first serious attempts to extend statistical methods to a study of the mental and moral phenomena of society, acknowledged his indebtedness to Fourier and through him to Laplace.

It is well to linger a moment upon the specific and important contribution that Quetelet made to a quantitative method in social science. It consisted in certain applications of the theory of probability. Things that happen by chance reveal in their grouping or arrangement a remarkable uniformity. When a cartload of bricks is dropped upon the ground, the individual bricks scatter in every direction, but more of them fall closely about a central point than elsewhere, and the aggregate is a roughly rounded pile. If hundreds of bushels of wheat comprising millions of individual grains fall from a shute to a floor below, the rounded pile presents an exceedingly accurate symmetry. This means that the greater the number of chance distributions of any given kind, the more precise is the regularity of their distribution. Mathematically it is represented by a curve, known as the probability curve, or the curve of error.

This term, "curve of error," has also an interesting significance. If a hundred different men should measure the distance between two points, their results, however carefully they did their work, would not precisely agree. The measuring rod or line might undergo slight changes, and men differ in manual dexterity and in accuracy of sight. Assuming that there is a true value or measure of distance, actual measurements differ from it by certain "errors" or "deviations." If these errors have been made by chance only, their distribution corresponds to the probability curve. If, however, they have been subject to a disturbing cause or bias, their curve is unlike the probability curve. Here, then, is a principle which can be and has long been used to determine the accuracy of scientific observation and measurement, both for theoretical purposes, as in astronomy, and for practical purposes, as in engineering.

But, obviously, the principle has a more profound meaning also. Any distribution of a great many numerical items which noticeably differs from the curve of probability reveals specific causation. It tells us at once that we have to look for a cause which is creating effects different from those that might happen by chance, and by its form it may give us some hint of what the cause is or where to look for it.

And even this meaning is not quite all. The curve of proba-

bility gives us the only precise meaning of the term "scientific knowledge." We have seen that human observations and measurements are never precisely accurate. Generalizations, in like manner, are never precisely true. The formulation of a law of nature can never be made absolutely exact. Scientific knowledge, therefore, is not that absolutely exact and certain knowledge which the popular mind assumes it to be. It is certainty or exactness within a range of error, and to diminish that range is the object of scientific endeavor. When, therefore, we are told that recent work in astronomy demonstrates that the Newtonian laws of motion and the law of gravitation, as Newton formulated it, have been corrected by a decimal or two, we are not told that these laws are invalid and that science, after making a splurge in the world, has arrived at bankruptcy, as M. Brunetière dogmatically proclaimed; we are told only what any modest scientific gentleman of fair mathematical attainments could very positively have *fore*told.

That the ideas and the methods of Laplace greatly influenced the thought of Auguste Comte, we have abundant evidence. Although he was a teacher of mathematics, Comte did not develop his own generalizations by mathematical methods. But he did grasp and exploit the notion that science differs from speculative philosophy in virture of its limited range no less than by reason of its practice of verification. Science can tell us how things are distributed in orderly coexistence and in orderly sequence, and it can discover with what other distributions any given distribution is most closely correlated. The various sciences themselves, Comte contended, are related to one another in a sequence at once genetic and logical, and to the complete body of knowledge which they collectively present he gave the name *Philosophie positive.* In his hierarchy, mathematics is the initial, the most abstract, and the most general science. The science of society is most concrete and special, and it is the final science to which all sciences that go before it are tributary. To distinguish the comprehensive social science from all fragmentary studies of society, dealing in their various ways with more or less definite divisions of social phenomena, and to mark it off as a body of pure knowledge from all programs of social reform, he called the social science "La

Sociologie." As Comte conceived it, sociology should exclude theological and metaphysical explanations, and keep itself distinct from ethical applications. Above all, it should keep itself free from the revolutionary spirit. In his youth Comte had been a disciple of Saint Simon, but he had wearied of revolutionary reform, and had come to believe that enduring social reconstruction must stand on firm and broad foundations of scientific knowledge.

Comte predicted sociology; he did not himself create it. The first strictly sociological treatise was the *Social Statics* of Herbert Spencer, published in 1850. Without either accepting or rejecting that comparison of Spencer to the great intellects of Greece, which his more ardent disciples have made, it may at once be acknowledged that the *Social Statics* challenges comparison to an extent that perhaps no other writing does, with both *The Republic* of Plato and *The Politics* of Aristotle. It propounds the same problems which they discuss, and it offers solutions which, though not identical with theirs, are closely parallel to them. The object of human effort for Spencer is happiness: and as he conceives of happiness, it does not greatly differ from the joy of rational activity which was the "good life" for Plato. Happiness depends upon external conditions, which are, namely, liberty and justice. Justice, however, for Mr. Spencer, is that limitation of liberty which equalizes it among men, whereas for Plato it was that specialization of work and opportunity which enables every man to do what he can do best, and to be what he can be perfectly. Both writers agree that to establish justice is the proximate purpose, or function, of society.

So far there is nothing essentially new in the *Social Statics*. But at the end of the book there is a discussion of the dynamics of society, the originality of which no well-informed critic has ventured to call in question. Society obviously is not at present in the perfect equilibrium of equalized liberty. Are social tensions and pressures, then, tending, Mr. Spencer asks, toward equilibrium? Have they been tending toward it from the beginning, and if so, to what causes may the progressive recomposition of forces be attributed?

Mr. Spencer resolves these questions into the problem of human

nature.[1] No mere social mechanism will ever maintain the justice of equalized liberty in a community of men whose supreme desire is to exploit the imperfections of the law. The equilibrium of conflicting interests must be established in the human heart, as in outward relations. The assumption of political science, as of theology, had been that human nature is unchanging until converted by supernatural agency. Political science, influenced and colored by theology, had pictured unchanging human nature as essentially evil, self-seeking and ruthless. The eighteenth century, reviving Epicurean individualism, reaffirmed also the doctrine that human nature is essentially good. The apparently intermediate position of Platonism and of Stoicism that man as a composite being is neither wholly good nor wholly bad, and that he is modifiable by adjustment to an objective law or condition, had reappeared in the teaching of Montesquieu and of Condorcet —which culminated in the historical philosophy of Buckle—that the human mind is directly or indirectly moulded by the topography, soil and climate of its physical environment. These writers, however, did not go so far as to assume that "inner moral nature" or "basic personality" which theology proclaims sinful, is regenerated by material causes. They argued only that man's temperament and dominant emotions, his ideas and beliefs, his superstition and his rationalism, are affected by physical conditions. The proposition that human nature at the beginning of a long evolutionary process was wicked, and that, under the action of natural causes which can be identified and formulated, it tends to become good, is Spencerian, and is new.

Accepting as he did the generalization, which Lamarck had made familiar in biology, that living things are ceaselessly trans-

[1] I use this phrase and I think we should continue to use it as it has been employed for generations to denote the concrete synthesis of "original nature" and "second nature." "Original nature" (Thorndike's phrase) is hereditary. It is made up of instincts. "Second nature" is not hereditary, and therefore is not truly "nature" at all. It is made up of "reconditionings" of instincts (by education and otherwise) and of habits. Discrimination of these two natures followed upon the general acceptance of Weismann's contention that "acquired" traits are not hereditary. To "original nature" Spencer's argument does not apply unless in five thousand generations or so instincts have been modified by mutation and selection. They have not been modified by use and disuse. To "second nature" the argument applies in full force.

formed through a continuing adaptation of organism to environment, Mr. Spencer perceived an overlooked significance of political integration. At the beginning of human progress, small social groups were so situated in relation to a common food supply that they were almost continuously engaged in warfare, but when, through successive conquests, small groups had been united in great states or national federations it became possible for a majority of men to give up military pursuits and to devote themselves to arts of peace. Herein, as Mr. Spencer argued, lay not only the possibility, but also the certainty, that primitive human nature, a product of the adaptation of primitive man to the conditions of his existence, must be as brutal and cruel and treacherous as theology had pictured the unregenerate human soul, but that developed man, under widely different conditions must necessarily be transformed into the kindly and helpful being who can live on good terms with his neighbors, and in cooperation with all mankind.

In this thesis of the concluding pages of *Social Statics* we have the germ of Mr. Spencer's rounded doctrine of evolution. Explicitly, or by implication, it contains all the cardinal propositions of the *Synthetic Philosophy:* that equilibration is the primary cosmic process; that integration and differentiation are necessary consequences; that life is a correspondence of internal to external changes; that mental evolution is the extension of adjustment in space and in time; that social evolution is progress from militarism to industrialism; that moral evolution is the conciliation of egoistic and altruistic impulses.

Mr. Spencer's sociological books are many and voluminous. We nowhere find in them a compact and logical summary of his sociological system. The following scheme of propositions was not made by him, but it received his endorsement:[1]

Societies are organisms, or they are super-organic aggregates.

Between societies and environing bodies, as between other finite aggregates in nature, there is an equilibration of energy. There is equilibration between society and society, between one social group and another, between one social class and another.

Equilibration between society and society, between societies

[1] In a letter to the author, December 7, 1900.

and their environment, takes the form of a struggle for existence among societies. Conflict becomes an habitual activity of society.

In this struggle for existence fear of the living and of the dead arises. Fear of the living, supplementing conflict, becomes the root of political control. Fear of the dead becomes the root of religious control.

Organized and directed by political and religious control, habitual conflict becomes militarism. Militarism moulds character and conduct and social organization into fitness for habitual warfare.

Militarism combines small social groups into larger ones, these into larger and yet larger ones. It achieves social integration. This process widens the area within which an increasingly large proportion of the population is habitually at peace and industrially employed.

Habitual peace and industry mould character, conduct and social organization into fitness for peaceful, friendly, sympathetic life.

In the peaceful type of society coercion diminishes, spontaneity and individual initiative increase. Social organization becomes plastic, and individuals moving freely from place to place change their social relations without destroying social cohesion, the elements of which are sympathy and knowledge in place of primitive force.

The change from militarism to industrialism depends upon the extent of the equilibration of energy between any given society and its neighboring societies, between the societies of any given race and those of other races, between society in general and its physical environment. Peaceful industrialism cannot finally be established until the equilibrium of nations and of races is established.

In society, as in other finite aggregates, the extent of differentiation and the total complexity of all the evolutionary processes depend upon the rate at which integration proceeds. The slower the rate the more complete and satisfactory is the evolution.

Mr. Spencer organized sociology as a science, and he demonstrated principles which must always hold a central place in sociological theory, whatever its further development may be. But

his analyses are by no means always exhaustive, and he raised many questions which he left unanswered.

The most fundamental question that his exposition left open, and over which dispute soon arose, is that of the true nature of the social aggregate. Is it, strictly speaking, an organism, or is it more accurately described by Spencer's alternative phrase—a super-organic aggregate? The notion propounded by Spencer that a typical society, consisting of individuals both dwelling and working together, is as truly an organism as is the animal or the vegetal body composed of cells and differentiated into mutually dependent tissues and organs, was exploited by Schäffle,[1] and Spencer himself took it seriously enough to draw from it the classifications followed in his *Descriptive Sociology*. Nothing came of it, however, and the alternative conception has prevailed. Herd habit, social sentiment and society are psychological phenomena. They are products of behavior, and social bonds no less than collective performances are common activities and interactivities of individual minds.

When this assumption is made, the further question arises: What definite mode of mental action or of behavior is the elementary social fact? There are four possibilities, namely, reason, impression, imitation, and pluralistic response to common stimulation.

The Platonic and the social contract theories assume that men perceive the utility of association and with conscious purpose endeavor to perfect it. The social bond, therefore, is reason. Machiavelli and the writers on sovereignty discovered the social rôle of that mental phenomenon which modern psychologists call impression, the power, namely, of the strong personality to awe or inspire the many, the power of the mass to overawe the individual. Durkheim with great ability maintained that this phenomenon is the distinctly social or society-creating activity of the mind. In *Il Convito,* Dante descriptively analyzes the familiar fact of imitation. The passage is of curious interest, because it pictures imitations as subject to refraction by media—the copy not being quite like the example—as spreading in a geometrical pro-

[1] *Bau und Leben des socialen Körpers.*

gression, and as setting up contradictions or duels among themselves. There is no evidence that Gabriel Tarde derived the theses of his brilliant *Les Lois de l'Imitation* from *Il Convito,* but it would not matter if he did. Nor does it matter whether M. Tarde derived much or little from the acute discussion of imitation by Walter Bagehot in the *Physics and Politics.* Tarde examined imitation and all that can be shown to proceed from it with thoroughness and penetration. He gave to the word a precise and characteristic meaning, that of the action at a distance of one mind upon another, whether consciously willed or not willed, passive or active. If it were possible to demonstrate that society is but a tissue of imitations defined as intermental actions, it would be difficult to add much of interest or value to Tarde's argument.

It is demonstrable, however, that neither imitation nor impression is the most elementary social fact. It long ago became unnecessary to argue that reason is not. When an audience springs to its feet at the cry of fire, its initial action is not imitation. Example and imitation enter as complicating factors the instant that movement toward the doors begins. The power of impression—of a cool and fearless man to overawe and quell—may then, by some rare good fortune, intervene to prevent panic, until reason can direct an orderly dispersion. The initial action is merely a pluralistic response (*i.e.* a reaction by more than one individual) to a common stimulation. In terms of like or of unlike, of prompt or of slow, of persistent or of intermittent response, all the phenomena of natural grouping and of collective behavior can be stated and interpreted. Intermental action is interstimulation and response. Like-response, complicated by intermental action, may become competition or may become concerted volition. It may become solidarity. Unlike-response differentiates and individualizes; it may disintegrate.

If some such explanation of the social process is tenable, it goes far to resolve the difficulties that are presented by an apparent dualism of social causation. The regional environment of a population sustains and energizes it, constrains and depletes it, and with infinite variety of provocation stimulates it. Through a medium of circumstances, including happenings of every descrip-

tion, environmental influence affects behavior. These are the original causes of society and of social evolution. The products of response, including personal influence, conscious motives and ideas, and the historical tradition, reacting as secondary stimuli, are real and immediate, although in a strict sense secondary, causes of social change. Both groups of causes, the primary and the secondary, act upon brain and nerve cells in the same way, by constraint and by provocation.

By means of this conception of social causation, the present correlation and coordination of sociological problems is effected. To environmental influence and circumstantial pressure response is pluralistic. Animals dwell together in swarms and in herds, and in regional aggregations. Men dwell together in wandering bands or in populations. The struggle for existence becomes a collective as well as an individual affair. From areas where the struggle is most severe or becoming intolerable men and animals move, if they can, to more favorable regions. Out of the rivalries and conflicts of migrating or colonizing aggregations develop new circumstantial pressures and new stimulations.

Under the action of these forces, populations assume varying degrees of density and of composition. According to their density and composition they react with more or less unity to a multiplying number of common stimuli, thereby becoming more or less alike in behavior, more or less homogeneous in feeling, thought and purpose. Through ever increasing intermental activity, they become increasingly conscious of their differences and resemblances. A consciousness of behavioristic kinds, combining with and supplementing like-response to stimulation, converts instinctive consorting and consorting by unthinking habit into a consciously preferential association, and thereby converts a herd into society. Also, combining with and supplementing like-response to stimulation, the consciousness of kind converts a merely instinctive cooperation into concerted action.

Concerted action modifies the relation of organism to environment and enhances well-being. It shields or removes individuals from destructive environmental influences. It multiplies contacts with stimuli. Above all, it so extensively recombines natural elements and forces, and so effectively directs their discharge through

new channels, that the environment itself, as far as its specific relation to man is concerned, is profoundly altered. Its adverse pressure upon him is diminished, its positive contribution to him and its stimulation of him are increased.

Individual differences of opinion and of ability may raise co-operation to a maximum effectiveness, while certain differences of attitude or of conduct may diminish its effectiveness or even destroy it. Human societies, perceiving these complications, become sensitive to the practical bearing of ethnic unity and of moral solidarity. Differences of blood and of speech, of creed and of conduct arrest attention and awaken distrust. Unconsciously in part, but consciously also in a measure, a great deal of collective action is directed upon the task of stamping out various differences among men. Such collective action is a true social pressure, a constraining power of the social mass upon the social units. Its understood purpose and its actual function are to increase the practical effectiveness of society as an instrumentality for the protection and improvement of life. Exterminating or restraining the anti-social, it selects for survival and encouragement the sympathetic, the intelligent, and the self-controlled, thereby converting the biological survival of the fit into a survival of the better for human purposes. Nevertheless, being repressive and destructive, social pressure curtails variation; it limits differentiation; it checks spontaneity; it sets bounds to individuality, and tends to create rigidity of social organization. It is of maximum utility, therefore, when it is just strong enough to control and to eliminate the elements that obstruct cooperation, without limiting the free activity of elements that already are adapted to social life. The social pressure that exceeds this degree is injurious and is justifiable only when it is the substitution of a less repression from within for a greater threatened repression from without. That society best fulfils its purpose which maintains a highly organized and effective cooperation with the least social pressure.

That social pressure tends to increase when circumstantial pressure increases, is a conclusion suggested by history and by current observation. Not only does the struggle of the nations to obtain room for their multiplying millions create coercive policies, as Mr.

Spencer explained, but so also do impending dangers and insufferable disorders.

To the extent that society protects man and, multiplying the stimuli that act upon him positively, enables him to improve and enrich himself, it converts a generic evolution into the specific thing—progress. Integration and differentiation, correlation and coordination, fill out the formula of evolution, but they are not necessarily a betterment of conscious existence. Evolution is also progress when each unit of the integrated mass or group becomes an end as well as a means. In the evolution of vegetal and of animal life there has been much ruthless sacrificing of the individual to the race. In human evolution the race has been maintained and differentiated at a diminishing cost to the individual. This has been accomplished by and through society. In the higher types of civilization, individual freedom and well-being are continually increased without necessary injury to the race. Race maintenance and evolution with diminishing cost of individual life, with increasing freedom, power and happiness of the individual person,—is progress.

So far, sociology at its best has been a logically organized body of observations and categorical inferences. Through an increasing use of statistical methods, it may take on the quantitative character.

To make the possibility clear, it is necessary to call attention to the significance which that very simple numerical term, the arithmetic average, has come to have in the theory of evolution.

If there is a struggle for existence in which certain organisms perish, while others survive, it is plain that the survivors tend, under given environmental conditions, to become alike, since all must possess those structural peculiarities and those habits which give advantage over competitors. The more specific the conditions and fierce the struggle, the more surely is an individual marked for destruction if he varies greatly from the successful type or norm. Now most peculiarities of organic structure and activity admit of measuring—like height, or of counting—like the number of veins in a leaf. The measures or other numbers relating to thousands of individuals may be brought together in col-

umns or tables. Their averages may be obtained, and the difference between each number and the average of all numbers of the same class may be found. Then, if the numbers, as shown by their deviations, have a wide dispersion from the average, we know that the individuals to which they relate have not for a long time been subjected to a relatively intense struggle for existence. It has been possible for them to vary within wide limits, and yet to survive. If, on the other hand, the numbers cluster closely about their average, we know that the individuals to which they refer have been subjected to a severe unifying pressure. They have ceased to vary because such as strayed from type lost their hold on life.

Applications of this principle developed by Galton, Karl Pearson, and others, have proved to be of great value in biology, in psychology, and in anthropology. There is reason to believe that in sociology they will be not less valuable, especially as in all statistical operations the possibilities of error diminish as the number of numerical items of any given class, and happening to be available for analysis, increases. Sociology will preeminently enjoy this advantage.

The first attempt to make a statistical statement of the greatest possible number of sociological problems, and to indicate their statistical solutions, we owe to Mayo-Smith. It was possible when he wrote to give precision to statistical studies of population at one end of the series of social phenomena, to studies of organization and welfare at the other end. The intermediate and crucial problems of mental type and variability, of selective social choice, and of social pressure could not then be handled by statistical methods. It is becoming possible now to state and solve them quantitatively by employing various new methodical devices. For example, Rodolfo Benini, of Pavia,[1] has demonstrated that it is a comparatively simple matter to measure a phenomenon seemingly so elusive as the consciousness of kind. Tabulating the Italian statistics of marriage, he ascertains how many bachelors would marry maidens, how many widowers would marry widows, how many men of a given age class would marry women of the same age class, how many men of a given nationality would marry

[1] *Principii di Demografia.*

women of the same nationality, how many Catholics would marry Catholics, how many men following a given occupation would marry women whose fathers followed the same occupation, if all of these combinations happened strictly by chance. Comparing the probable numbers with the actual selections, he obtains index numbers of selective choice or preference, thereby determining the intensity with which, as Empedocles remarked, "like desires like." This method is applicable to a wide range of social choices.

By a procedure not very different we could measure social pressure. In modern times social pressure is definitely distributed through provisions of statute law, and these admit of tabulations from which index numbers could be obtained. By means of varying index numbers, therefore, we could measure the varying degrees of social pressure as we measure changes in the purchasing power of gold. It is hardly too much to say that all of the chief theorems of sociology probably admit of quantitative statement, solution and correlation.

In this all too hasty survey of sociological problems and methods, certain provisional conclusions have been indicated. But for the moment they seem to involve us in new difficulties. Apparently, they present curious contradictions. Mr. Spencer tells us that in society, as in aggregates of inorganic things, the character of the units determines the character of the mass, and daily observation affords many seeming confirmations of this view. The collective behavior and the agreeing purpose of a thousand German-born, or Italian-born Americans, are not altogether like the collective behavior and the agreeing purpose of an equal number of descendants of New England Puritans under like circumstances and in the same environment. On the other hand, Plato and a long line of later philosophers assumed without question that the character of the mass determines the quality and the conduct of its component units. This assumption is borne out by the biological conclusion that environment moulds the organism, and it is the postulate of both our educational policy and our legislation. That each proposition is true within limits we may perhaps infer from parallel phenomena in the physical world.

The geologist tells us that rock which is so highly crystalline that it inexorably determines the character of any structure built of it, may, nevertheless, become wax-like under pressure. In like manner, the harshly individualistic character of the frontiersman determines the scope and the quality of the elementary social relations which are sufficient for his need; while in the dense human mass of a great metropolis, with its traditions and conventions, its municipal ordinances and its highly organized police power, the individual becomes plastic and conformable. Some traits of individuality are lost, and the traits of a type, or class, appear.

The causation is obvious. As social evolution transforms the frontier into villages and towns, and draws population from these to the metropolis, it converts circumstantial into social pressure, which compels the human units of the community to conform their characters and their lives to a social norm. But now another antinomy appears. Sociology confirms the teaching of biology that individuation is a function of liberty, of freedom and occasion to vary from type; and society constrains. Yet society, notwithstanding its constraining power, on the whole diminishes the sacrifice of the individual to the race, enlarges liberty and heightens individual life.

The problem again is one of limits, but in this case it is one of new factors also. While circumstantial pressure tends always to increase social pressure, the relation is not unvarying. The physical and the mental composition of the population affect the ratio. Homogeneous communities are normally democratic. Highly heterogeneous communities, until they attain a very high level of moral and intellectual development, normally evolve coercive authority. The Quaker congregation needs not even a priest. The Roman Catholic communion, embracing all sorts and conditions of men, is governed by the Hierarchy. The New England town can manage its affairs in town meeting. New York City is ruled by Tammany Hall.

In this relation of demotic composition to social pressure lies the real importance of those practical questions pertaining to immigration and its restriction which now interest the American people. Homogeneity need not disappear, and social pressure need not increase to the point of despotism if assimilation rapidly

transforms the heterogeneous invaders. Liberty can be preserved and extended even under an increasing circumstantial pressure, as long as society continues to be creative not only of social pressure, but also of its strictly characteristic product—a people—in the sociological sense of the word.

As the sociologist views it, a people is not merely a middle class, or a lower class, in an economic stratification of the population. Much less is it that rabble of the ignorant and the lawless which bulks in the aristocrat's imagination. A people is a psychological middle class between the arrogant and self-sufficient at one extreme, the rude and vulgar at the other extreme. A people is composed of the considerate, which is to say, of those who have both manners and ideas. It is that part of a population which can lay some claim to mental and moral unity, which can do things collectively, which has, in a word, common purposes backed by social instincts and habits. Cicero defined it perfectly. By a people, we are to understand, he said, "not every group of human beings, however brought together, but a multitude united by a common sense of right and by a community of interest." [1]

We are not at the end, however, of complications and of seeming contradiction. The nation that should adopt the policy of absolute exclusion of alien elements might lose thereby more than it could gain. We have observed that stimuli are multiplied by social contacts. Who would venture to estimate the amount of well-being that has come to this American nation by reason of that broadened outlook upon the world, that swift play of mind upon mind, and that true understanding of man by man which are ours because our gates have been held open to our kindred of all lands?

Once more, then, our problem is seen to be one of limits, within which a given effect of social forces may be anticipated. And because this is the nature also of those practical problems with which statecraft has to do, we discover the possible practical value of theoretical sociology as a scientific criticism of public policy. Sociology has been ridiculed as a science which formulates in forbidding terminology the obvious conclusions of common sense. The jibe is an old one, and each science in its day has

[1] *De Republica*, I, 25.

inherited it. By common sense men could build a bridge that would sustain a given load, but they would waste material. Common sense does not tell the engineer what cross-section his girders must have both to carry the load desired and to insure his retention as a fit adviser to an economical corporation. Under the pressure of external forces, either military or economic, nations adopt policies of unification, which often are extreme and unnecessarily costly in many ways. Reacting from these, they relax the social pressure not only on the socialized and self-controlled, but also on the unscrupulous exploiter and the predatory criminal. It will be possible to subject these empirical policies to a rational criticism when sociology has provided us with approximately accurate measures of social forces, and of the correlation between social pressure and both the concentration and the composition of the population. Upon the success or failure of our attempt to obtain these will depend the possibility of knowing certainly what policies under given conditions further human progress, and what retard.

PART II

ANALYTICAL

CHAPTER VII

ORDER AND POSSIBILITY

To the scientific mind the universe is order; to the practical mind it is possibility. Both minds, however, know that order and possibility are compatible; it is only the mind that is neither practical nor scientific which imagines that they are not. Therefore, the scientific mind is under logical obligation to show how order accommodates possibility, and the practical mind, if wise, will wish to know what bounds are set to possibility by order. These intellectual requirements bear particularly upon those specialized investigators who undertake to find an order, admitting of description in categories of cause and law, in the practical activities themselves of all sorts and conditions of men. If they proclaim a science of society they must themselves understand, and they must make clear to others, what they mean by "cause" when they talk about social causation, and what they mean by "law" when they set forth sociological laws. They must know what "order" is and what "possibility" is.

At the general session of the German Association of Naturalists and Physicians, held at Vienna in September, 1894, an Austrian physicist, Ernst Mach, delivered an address which every scientific inquirer should know. It was entitled, "On the Principle of Comparison in Physics." In substance it was a lucid analysis of the nature of scientific thought, and incidentally of the true nature of science itself. Dr. Mach began by recalling a definition of mechanics which had been given twenty years before by Kirchhoff. Mechanics, Kirchhoff had said, is "the description, in complete and very simple terms, of the motions occurring in nature." This definition had agitated scientific circles. It contained no mention of explanation or of prediction as functions of science, no allusion to universal or cosmic law, no hint of any search for

first principles or causes. The scientific mind was perturbed. Was science, the supreme achievement of the nineteenth century, about to abandon its chief pretensions? Mechanics is of all sciences the most exact and the most advanced. If, then, mechanics is nothing but description, no other branch of knowledge can claim to be more. To demonstrate that this is the simple and practically helpful truth was the task that Dr. Mach essayed.

I shall not attempt to repeat the demonstration in detail. It consisted in showing that description is a putting together of facts in a coherent system or continuum, which accurately corresponds to the coherent system or continuum of reality; and that explanation, prediction, the formulation of laws, are nothing more and nothing less. When, for example, the physicist formulates the law of gravitation, as an attraction of bodies for one another which varies directly with their masses, and inversely with the squares of their distances, and predicts that an unsupported body will fall toward or rise away from the surface of the earth according as its specific gravity is greater or less than that of the atmospheric envelope, he merely puts together, in a single condensed expression, a large number of observed coherences of fact.

What, however, are observed facts? Is the "attraction" which the formula alleges one of them? Yes or no, according to our definition of the word. Shall we say that it is the "pull" of a "force"? Has any human being ever seen, handled, or otherwise perceived a force? Certainly not. And what, moreover, does any human being know of a "pull"? Nothing whatever beyond certain sensations of muscular tension or of political fatigue. All, then, that can actually be observed of attraction is a certain number of changes in the successive positions of material objects, and a certain number of changes in the degrees of rapidity with which the changes of position take place. All that we can really experiment with is a number of volumes, densities, positions, distances, accelerations, and retardations. And our formula or law, therefore, is nothing more than an accurate description of the way in which these observed facts cohere in an objective series or system of reality. The object of science is to extend description, in this sense of the word, until it includes all knowable facts of matter,

life, mind, and society, and places each fact in its proper place in the complete system.

This conception of science, the only one which a critical examination of the nature of our knowledge permits us to entertain, discloses practical values. As science approaches perfection, the description of the cosmos becomes continuous. We discover that every known fact has, in coexistence and in sequence, points of contact with other known facts. The lines and colors in our chart of the universe are not drawn or splashed at random; they lie before the mental vision in an order of gradations, proportions, series, and systems. Facts in any part of the chart are seen to be related to all facts in every other part. So we arrive at the conception of nature as a system of interdependent facts. This conception once reached, we perceive what really we mean when we say that science enables us to predict combinations of facts not hitherto observed. Convinced by what we already know, that further description of nature will not derange the system already apparent, we expect that further knowledge will continue the curves already partly drawn, without changing their equations, fill in unknown terms of series without changing their formulas, and supply shades of color that will not disturb the scheme already apparent. In this way science enables us to anticipate facts not yet actually observed. If, then, we admit that science is description, and that description both reveals and presupposes the interdependence of the descriptive elements, we can accept the theoretical and practical conclusion at which Dr. Mach arrives, that science completes in thought facts that are only partly given.

So understood, scientific description, it is plain, is both concrete and abstract. It not only *depicts,* pictorially, in colors, shapes, and perspectives as we *perceive* them, but also it *factorizes,* resolving concretes into sorts, sizes, positions, sequences, arrangements, proportions, correlations and coordinations, as we *conceive* them.

Therefore after all, science does explain, in a certain logical, non-mystical, sense of the word. Resolving perceived or concrete wholes into conceptual or abstract factors which, in turn, forecast new concrete wholes that when looked for at the right time and place will be perceivable, *scientific description discovers the pos-*

sibilities of interchangeability between perceptions and conceptions.[1]

Now to forecast from abstract factors or concepts (organized into a theory) new concrete wholes that turn out to be perceivable, is to predict; and to perceive new concrete wholes that have been predicted is to verify the conceptual theory. Precisely this is what the scientific man means by explanation. Whatever else passes for explanation is either a pretense, falling short of explanation or missing it, or it is a metaphysical leap into the unknown, and is unverifiable.

So it comes to this, that scientific explanation is description in conceptual terms carried to the limits within which verification by perception is possible, and that conceptual description verifiable and verified by perception, is explanation.

The notion "causation" like the notion "explanation" has had a past of which the less said the better. It has kept company with metaphysics. But that is no reason why it should not usefully be employed in science, under a watchful eye. If we talk about "explanation," we must talk about "causation" because, as will appear, explanation is a discovery of causation.

Observe what happens. When we explain a thing or happening we factorize it. The process goes on in our minds. The thing or happening itself is an object outside of the mental process of explaining it. Whether or not it is also outside of our minds or of any and all minds is another question. Objectively it is the perfect integration of its factors. If any factor be lacking the thing does not exist, or the happening does not happen. Therefore the perfect integration of its factors is the cause (in any possible scientific meaning of the word) of the thing or happening. Factorizing brings to light the integration, and explanation by factorizing, consequently, is a discovery of causation.

Loosely we speak of a dominant factor (outranging guns, overwhelming numbers), or of a last contributed factor (the lighted match applied to the fuel), or to a factor to which responsibility attaches (a casting vote) as a cause, or as *the* cause of something. This is rhetoric only, but it is harmless and convenient.[2]

[1] On this subject compare Karl Pearson, *The Grammar of Science*, and Bertrand Russell, *Mysticism and Logic*.

[2] The conception of causation as the integration of factors is substan-

As the scientific description which is also explanation is a discovery of causation, so also is it a discovery and formulation of law. Any persisting relation (correlation, superordination, coordination, or subordination) of factors is a reality which is or may be formulated as a scientific generalization or as a scientific law.[1]

It is now necessary to observe that while law and cause are categories of order to which science undertakes to reduce the description of its results, they are not, as a rule, the categories used in obtaining results.

Research begins, as the unconscious acquisition of knowledge begins, with the simplicities of discrimination and counting; and the categories, therefore, that we first use in factorizing are number (count of discriminated items); qualitative difference and qualitative resemblance; and quantitative difference, or inequality. After these, the categories chiefly available in discovery are correlation (comprising all degrees of association, concurrence and contingency); composition; coordination (together with superordination and subordination); and mechanistic reaction.

tially identical with the more loosely defined conceptions of Mill's *Logic* and Jevons's *Principles of Science,* long accepted as the last word on the subject. The "necessary antecedent" of an effect, which Mill called a "condition," is simply any one factor; and the "sufficient antecedent," which he tagged as "cause," is the integration of all factors, and cannot conceivably be anything else.

[1] When it is worth while to be precise we must discriminate between a constant relation of a static phenomenon to a static, and a constant relation of a kinetic phenomenon to a kinetic. It is therefore convenient to associate the word "generalization" with the one, and the word "law" with the other.

"A generalization, in the scientific sense of the word, is an affirmation that a constant relation exists between an unvarying class of facts and some unvarying fact not in the class, or between one unvarying class of facts and some other unvarying class. . . . Kepler's law . . . is a generalization."

"A law, in the scientific sense of the word, is an affirmation of a constant relation between a fact of variation and some other fact of variation, or between a fact of variation and a class of variations, or between a class of variations and some other class of variations. . . . The law of gravitation. . . ."

"A class, in the scientific sense of the word, is a plural number of facts that resemble one another in some given point or number of points."

"A fact, in the scientific sense of the word, is the close agreement of many observations or measurements of the same phenomenon."—Giddings, *Inductive Sociology,* pp. 13, 14.

Of correlation, two great subcategories are recognized for practical purposes, namely, perfect correlation, or "one to one correspondence," and imperfect correlation. Mathematically they are merely differences of degree.

Within the limits of our experience a designated thing or happening may invariably be associated with another designated thing or happening, and the ratio of one to the other throughout any succession of quantitative changes may so nearly be constant that our best instruments of precision do not enable us to detect a deviation which philosophical or mathematical theories of relativity presume to be possible. The acceleration of a falling body in a unit of time, the pressure of a gas at a given temperature, the ratio of a degree of heat to a gravitational foot pound, are examples. In finite experience these are substantially one to one correspondences: there is always so much of one to so much of the other, point by point. They are one hundred per cent, or "perfect," correlations. They are the so-called "immutable" laws of nature. Conceivable deviations from them, if there are such, are infinitesimal, and for human purposes negligible.

Correlations of the other subcategory are imperfect. A designated thing or happening is associated or is concurrent with another designated thing or happening in less than one hundred percent of all cases known or taken, or the ratio of one to the other is variable. If, however, variation is within assignable limits, and the percentage number of instances of association whether large or small is constant, we have in the phenomena an order on which we can rely. Indeed, for the purposes of everyday life we rely on it as confidently as on one to one correspondences. We sow expecting to reap. We plan journeys expecting that trains and boats will run by time tables and predetermined dates. We make business and professional engagements expecting that parties of the other part will keep appointments. We buy and sell commodities and securities expecting that price fluctuations will range within familiar limits. We bring up and educate children knowing that they have an ascertainable "expectation" of life.

Perfect correlations are "certainties" in a finite meaning of the word. Imperfect correlations are "probabilities"; either positive,

ranging from 0 to 1, or negative, ranging from 0 to — 1. To the extent that a science measures "chances" above or below "fifty-fifty," it is a science of probability. If it discovers and demonstrates one to one correspondences it is, so far, exact. Mechanics, thermo-dynamics, and chemistry, are exact sciences. Biology, psychology, and sociology, are sciences of probability in the main, but exact in detail here and there.

Perfect correlation while it persists sets limits to possibility and makes it determinate. Imperfect correlation leaves it indeterminate. The crop may fail or be "a bumper," stocks may go down or go up, beyond precedent.

And as a concrete phenomenon a particular correlation whether perfect or imperfect, is not necessarily persistent: when a falling body hits the ground the correlation of acceleration with time ceases as far as this instance is concerned. The happening, or the evolution, or the making of correlations determines possibility; the termination of correlations removes or sets back bounds, and restores indeterminateness.

In attending to associations of things, or of happenings, that are liable to dissociation and recombination we pass from simple correlation to multiple correlation, or composition. Here also possibility is determined and limited at any given time by an existing order; nevertheless, it is unimaginably great. The items of which the universe consists are combined, and the combinations are compounded: electrons in atoms, atoms in molecules, inorganic molecules in inorganic masses, protoplasmic molecules in organic cells, cells in complex living bodies, and these in groups or populations; reactions in acts, acts in complex behavior, and behavior in competitions and cooperations, customs and institutions, movements and policies that constitute society and history.

Some of these compounds are homogeneous, their component items are of one kind; others are heterogeneous, their component items are of various kinds. Some of them, atoms above all, are stable and long enduring; others, the nitrogenous compounds conspicuously, are unstable, easily, and often quickly, broken up; yet others, organic bodies, simultaneously break up and build up, by continually eliminating outworn components and replacing them with new. The relation of possibility to composition turns upon

these differences. The greater its heterogeneity, the greater its instability, the more rapid its metabolism, the quicker its reaction of release or of inhibition, the more indeterminate is possibility: the greater is the number of possible happenings constructive or destructive, good or bad, to, in or by a composite body: the greater is what the untutored man and the philosopher (without collusion) call its "freedom" or its "liberty," or, perhaps, its "self-determination."

Component bodies may not only be different in kind but also be unequal, in age, size, energy, attribute or condition. If numerous, some of them may be equal among themselves, while superior or inferior to others. Equals are said to be coordinate, superiors to be superordinate (a super order) and inferiors subordinate (a sub order). Planets are approximately coordinate; suns by comparison with planets are superordinate, and satellites, by comparison with planets are subordinate. These distinctions may be categorical only, or they may appear in a concrete arrangement, a hierarchy of ranks. The solar system is such an arrangement, so is the hierarchy of living bodies, from bacteria to man. For brevity, hierarchical arrangement is called "coordination," superordination and subordination being assumed. In human society throughout history coordination has been a phenomenon of commanding importance. Hierarchies of priests, bishops, and archbishops; of private soldiers, officers and commanders; of serfs, freemen and nobles; of wage earners, capitalists and magnates, have ordered and determined human life.

The sciences, as Comte discerned and contended, are hierarchically related. The progress of knowledge, however, has necessitated a revision of the order that he set down, and new designations. The series as it now stands is: mechanics, electro-physics and electro-chemistry, chemistry, thermo-dynamics, astronomy and geology (these two are complexes of the preceding four), biology, psychology, anthropology, ethnology, archæology, history, and sociology.

It is unnecessary to offer evidence that coordination determines and limits possibility. The proposition is obvious, and vivid to human experience.

So far we have looked at static order, and its determination of

possibility. When we turn to observe the happening that we call mechanistic reaction, we concern ourselves with kinetic order.

Every reaction that can be identified and measured by organs of sense is mechanistic. If anywhere in the material universe there is a going on, or creative evolution, that is not mechanistic, it belongs to a realm of things not seen except through Alice's (or other philosophers') looking-glass. Conceding the perspicacity of Alice, and admitting that explanation of brain functioning, or even of digestion, in mechanistic terms has not yet been achieved completely, the scientific inquirer asks people who make themselves responsible for theories of human behavior not to pronounce achievement impossible and not to accept the revelations of the speculative glass until they have taken the trouble to learn what "mechanistic terms" are (and are not) and whether the explanatory possibilities of mechanistic hypothesis have been exhausted.

To begin then with terms, or conceptions, what is the order that we call mechanistic? Concisely, *it is a system of equivalent sensible changes.* And what is it not, or not necessarily or always? Concisely, a mechanistic phenomenon is never a change of nothing into something or of something into nothing; and a mechanistic system is not necessarily or always *machinistic;* more often than not it is merely *ballistic.*

A sensible change is a change that we become aware of through any one of our organs of sense, or through any combination of them. It is more tangible than a change of mind. Sensible change is *motion,* and every motion is equivalent to motion out of which it came, and to motion into which it goes. The changing modes or kinds of motion may be different or various; electronic, atomic, molecular, molar, but the rule of equivalence holds. The mechanistic order of the material universe therefore is a system of equivalent motions.

This proposition means the same thing that the so-called Newtonian laws of motion mean, namely that reaction is equal to action and opposite to it in direction; that a body (or particle) at rest remains at rest, and a body (or particle) in motion continues in motion until impelled, drawn or impeded from without; and that a body in motion moves in a straight line until deflected

from without. The proposition is equivalent therefore to Spencer's affirmation of the persistence of force. It is equivalent also to the law of the so-called degradation of energy, of which more will be said presently.

But it does not follow from the laws of motion that all motion is *machinistic,* or that the mechanistic order of a material universe is a machine. The billiard balls on a table where men are playing are not a machine, and their motions, while strictly mechanistic, are never machinistic. The material universe as a whole is not a machine; parts of it only are machines, other parts are in process of becoming machines, and yet other parts remain wild turbulences. Neglect or inability to apprehend the distinction here made accounts, I am convinced, for most of the antagonism of "vitalistic" biologists and "idealistic" or "spiritual" sociologists to mechanistic explanations of the life processes and the behavior of material organisms. A few further words of amplification and illustration may, therefore, be helpful.

A machine is a system of parts so tied or linked together, or so coupled or geared, or otherwise so correlated that their motions are one to one correspondences, or correspondences within limits of error that are negligible in prediction: they are *definitely* mechanistic. In contrast, a turbulence (for example a swirl of dust, a tornado, or a torrent) is an assemblage of particles or larger units that move freely in any direction: their motions are *indefinitely* mechanistic. A solar system is a machine; a flaming gas is a turbulence; a nebula is a turbulence that is becoming or may become, a machine. A germ cell, a brain, a politically organized community, is half turbulence and half machine.

In a system that has become a machine possibility is limited and determined; in a turbulence it is indeterminate.

The extent to which mechanistic order limits possibility in particular cases, and the ways or modes of determination, are of cardinal importance to students of social theory. Much social theorizing has been futile because of neglect to master them.

Pretentious social philosophies could be cited (they are taught in colleges), the makers and builders of which unconsciously and in all innocence postulate something from nothing or nothing

from something, because, appalled by the complexities, they will not take the trouble to understand the simplicities of the degradation of energy.

This expression is an abbreviation for: the dynamic degradation of a concrete body of matter. It means that energy "does something" (it "works") only when a delimited portion of the "matter" that in final analysis perhaps is energy, or that "carries" energy, or is charged with it, falls from a higher to a lower gravitational level, like water from a dam; or from a higher to a lower tension, like an uncoiling watch spring; or from a higher to a lower temperature, like expanding steam back of a piston head; or from a higher to a lower magnetic state, like the reacting armature of a dynamo; or from a more to a less unstable equilibrium, like an exploding mixture.

The energy content of matter not yet dynamically degraded is rightly called "potential." It is unexpended, and ready to do something. Energy doing something is called kinetic. The portion of matter that carried it is losing it, and so is undergoing dynamic degradation. The energy content of matter that at present can undergo no further dynamic degradation is wrongly called "potential," apparently for no better reason than that it is not kinetic. It has become, in fact, impotential.

It has become impotential, and the portion of matter now carrying it can undergo no further dynamic degradation, because the energy content of that particular body of matter is now in equilibrium with the energy content of matter round about it. Equilibrium is inertness.

So, it turns out, the degradation of energy is "the equilibration of energy." This expression also is an abbreviation. It means: the equilibration of the energy content of bodies of matter so placed in relation to one another that energy (molar motion, or molecular motion, or atomic motion, or electronic motion) can and does flow from the more highly charged to the less highly charged body.

Inasmuch as this process is finite and relative, it follows that when we say of a delimited portion of matter *a* that it can undergo no further dynamic degradation, we mean that *a* can suffer no such further degradation under existing states of environing

matter *b*. If the energy content of *b* at any time suffers depletion, *a* in contact with *b* can be further degraded, and its contained energy will then become potential or kinetic. Furthermore, a dynamically degraded material body or "closed system" of matter can be recharged with potential energy from without, if energy from supercharged bodies hitherto shut off from it can be transmitted to it and suitably transformed. The mill can grind again with water that has passed if sun energy lifts it to the clouds to fall in rain above the dam. The watch spring can be wound, and the exhausted steam can be passed again through the boiler.

In this process, however, further rules of order are encountered which set new limits to possibility. In transformation and transmission energy is lost, not out of the universe, but out of concrete material bodies, the charging or supercharging of which is work. The ratio of work to loss (*i.e.* to waste) increases up to a point experimentally ascertained. It then diminishes until, presently, waste increases faster than work. These differential ratios of loss, waste, or "cost" to work accomplished, are encountered throughout natural phenomena and human industry, and are known as laws of increasing and diminishing return. They were first brought to attention by economists, and all scientific economy is founded on them. Economists of the paradoxical school who deny them do not know their elementary physics and talk nonsense. Economists who acknowledge these laws but teach that they are unimportant to "up-to-date" man because invention diminishes waste, and discovery from time to time finds new sources of potential energy, never squarely face the real dilemma, which is, that inventions which diminish waste and tap hitherto unknown stores of potential energy call for the use of very special substances, for example high grade steels, fine copper, nickel, platinum, and so on to uranium and radium, all of which as our present knowledge goes, are of limited supply, and some of which are excessively rare.

Whether the future will bring reassurance no one can predict. At present mankind is wastefully using up and wantonly destroying available sources of potential energy: coal, oil, gas, forests, and entire species of plant and animal life that are the converters of sunlight and sun heat into foods on which the human

race can subsist. To conserve them is becoming the most imperative of obligations.

While the equilibration of energy limits possibility quantitatively, it also determines the modes and forms of possibility, and this qualitative process is evolution.

When a delimited aggregation of matter (gaseous, liquid or solid) is losing molecular motion (radiating heat into environing matter of a lower temperature, as molten metal does in cooling), it condenses or, using Mr. Spencer's term, it "integrates." At the same time, different parts of it become unlike one another in various ways, because radiation proceeds at unequal rates from different surface areas and from the surface and the interior of the mass; and because different areas and interior parts are variously played upon by energies from without. The cooling metal wrinkles, and may twist or crack. The influences that bring about "differentiation" bring about also sortings and assimilations of molecules and their compounds. Units of like weight and shape get thrown together, as stones do in one place, pebbles in another place and sand in another place along the roadside during a rain. This assorting Mr. Spencer called "segregation." It is supplemented by a deeper change which he failed to name in his formula. Just as units differently reacting to incidental energies become increasingly different, so do units similarly reacting become increasingly alike—they are assimilated—and this phase of the evolutionary process is important in the phenomena of life and behavior. It is especially significant for the student of social theory.

These four consequences of the equilibration of molecular energy, namely integration, differentiation, segregation and assimilation, make up mechanistic evolution in its simple or primary phase. Mr. Spencer, who first apprehended and described it, described also a secondary phase, or compound evolution, which occurs when the integrating aggregate is taking in molecular motion from without while losing it from within, as the earth, for example, gets heat from the sun while radiating it into space, and as living bodies while expending their energies take in fresh stores, in the foods on which they subsist. The total loss of energy in these cases exceeds the total intake (when the ratio is

reversed dissolution begins) but evolution is slowed down, and secondary differentiations and segregations are multiplied through internal redistributions of energy.

All of these changes conform quantitatively to the laws of increasing and diminishing return, which, therefore, in the strict sense of the word are the laws, as distinguished from the general description or formula, of mechanistic evolution.[1]

Yet another phase of evolution not described, or named, by Mr. Spencer, is even more important for biology, psychology and sociology than assimilation is.

The equilibration of molecular motion with which mechanistic evolution begins is an *extra* or an *inter* equilibration. It occurs, as has been said, between a delimited aggregation of material units and matter extraneous. There is also, however, from the first, an *intra* equilibration: an equalizing of molecular motion between each differentiated part and every other part, between each group of segregated units and every other group, within the aggregate.

Mr. Spencer saw and was at pains to explain the redistributions of internal motion that go on step by step with the integration of matter and the differentiation of its groupings, and the consequent multiplication of effects; and he insisted on the importance of adequate time for the completion of redistribution as a factor in the evolution of high types of structure and function. He did not discover that among multiplying effects intra equilibration creates a mechanism and sustains a process of *internal control* of evolution, that is quite as important as external controls. In living matter, in nervous systems, and in political society it is often more important.

The equilibration of energy between the sun and the planets more directly and more intensively than equilibration between the solar system as a whole and whatever fills the spaces beyond it has controlled the development of planetary surfaces, of hydrographic and atmospheric changes, and the evolution of life. Equilibration within the cell as much as equilibration between cell and environment determines all that is characteristic of living matter both in structure and in function. Equilibration between

[1] Giddings, "The Laws of Evolution," *Science*, August 18, 1905.

the central nervous system and other organs and tissues creates the characteristic controls of behavior. In the evolution of politically organized nations extra and inter equilibrations take the form of war and conquests, while intra equilibrations appear as class struggles and revolutions. Governments and their functions are products of equilibrations between a relatively small group of alert and persistent men reacting to situations, and a relatively large mass of men that are inert and ineffective.

Development of internal structures and controls in living bodies produces numerous machines; among which the articulated skeleton, the circulatory apparatus, and the central nervous system, are outstanding examples that everybody in a measure understands. Many of them, the organs of sense preeminently, are complicated and delicate, but their performance is not often the precise one-to-one correspondence that we look for in machines made by man. The reason for deviation is highly significant. Organic machines are automatically adaptable to changing conditions to a degree that artificial machines do not attain.

The apparatus of heredity and of mutation is machine-like in form but is ballistic in performance; except in one particular, if the non-inheritance of characters acquired after birth turns out to be a one hundred per cent correlation. The Mendelian proportions in which the traits of two ancestral lines are transmitted are a high but not a perfect correlation. Mutation apparently is contingent upon "cross overs" of chromosome halves, but these may be brought about in more than one accidental way, as well as by experimental predetermination. As a general proposition we can say that heredity is a relatively strict determination and limitation of biological possibility, while mutation is relatively indeterminate.

A similar general proposition holds true in the domain of behavioristic psychology. Behavior is a function of two variables, namely, stimulation and the performance of a reaction apparatus. Development of the reaction apparatus including internal controls, limits and defines the possibilities of behavior. Stimulation is indeterminate, and forever will be.

At this point it is interesting to inquire why mankind has always more or less resented the proposition that life is mechanistic, and has clung to "free will" in the realm of conduct. The usual

answer, that we like to believe that we are "spiritual" beings and "responsible," is more orthodox than informing. If the evolutionist biology is substantially trustworthy the true answer, it would seem, must be that this prejudice is a by-product of the adjustment of life to a world in which luck plays its part against certainty; in which correlation is not always one hundred per cent; in which the mechanistic is as often ballistic as machinistic. Assuming that such adjustment has been under way from the beginning, it is not surprising that man likes it. He may flatter himself that he likes it because he experiences exaltation (not to mention self-esteem) when he freely chooses the true and the good, but, notoriously, he likes it no less well when he chooses the false and the bad.

In a famous passage Mr. Huxley said:

> "I protest that if some great power would agree to make me always think what is true and do what is right, on condition of being turned into a sort of clock and wound up every morning before I got out of bed, I should instantly close with the offer. The only freedom I care about is the freedom to do right; the freedom to do wrong I am ready to part with on the cheapest terms to any one who will take it of me."[1]

Without abatement of respect for one of the clearest-headed men that ever lived, I protest that Mr. Huxley did not think what is true, in this instance. Man wants freedom both to do right and to sin, to know and to guess wrong, *as may happen,* no less than as he, in his self-determination may choose; and he wants this large freedom (immeasurably wider than "moral" freedom) because he is so made up and adapted that he craves, with a modicum of certainty, a large measure of chance. He is glad to know that summer will follow winter, an important matter of course, but he is not less glad that when it does follow he again will bet on the horse race, the stock market and the election. Above all, he wants adventure, of thought, decision and experience. He swells with self-determination, relying on his own apparatus of internal controls, but he could never again be happy if he were deprived of his *self-indetermination.* He wants to

[1] Essay *On Descartes "Discourse Touching the Method of Using One's Reason Rightly and of Seeking Scientific Truth."*

change his mind *when he wants to,* and to go back for his umbrella.

Well, he always will. He lives in a world in which, for all we know, reaction mechanisms may become machines as perfect as Huxley's hypothetical clock, except that they will have to be played on by stimuli instead of wound, and that the stimuli will swirl forever in turbulences, and play pranks.

CHAPTER VIII

A THEORY OF SOCIAL CAUSATION

USING the word "causation" in the stricter of the meanings defended in Chapter VII, and assuming, in accordance with it, that social causes are stimulations that call forth pluralistic reactions of a particular kind or of various kinds, I shall attempt in this chapter to examine the phenomena of social causation from the standpoint of stimulation, and in Chapter IX to describe them in terms of response. In the remaining chapters of this Part, I shall look at stimulations and responses, actions and reactions, as concretely inseparable in pluralistic behavior.

I have before me a pile of newspaper accounts of assemblings of human beings, from small gatherings to great crowds. In one hundred and thirty-one instances the occasions, circumstances, situations or other stimulations which brought the participants together have been stated by the reporters. These stimulations are most various but fall into classification as follows: natural resources of a geographical place or region, 4; drought, 2; storm, 1; conflagration, 2; epidemic, 1; war, 8; insurrection, 10; minor occurrences of human origin, 87; personal example, appeal, or intimidation, 16.

Here, obviously, are two contrasted kinds of stimuli namely, static situations consisting chiefly or perhaps wholly of regional influences changing so slowly that change is negligible, and kinetic situations consisting of regional changes disturbing to mankind, and of other circumstantial influences. The circumstantial influences are divisible into *a*, those consisting of physical factors only or chiefly (drought, storm, conflagration, epidemic), and *b*, those consisting of human factors only or chiefly (war, insurrection, minor occurrences of human origin and personal example, appeal and intimidation).

Also, obviously, the stimuli here classified are of two orders, primary and secondary. The influences that consist wholly or

chiefly of human factors are products of past responses to antecedent stimulations. The numerical preponderance of these cases in our data indicates that a major part of all pluralistic behavior is provoked by secondary stimuli, and this we know (by every day observation) to be true. The very arrangements under which we live, the groupings and the doings of our fellow men, their ideas and purposes, their laws and institutions, are ever present, ever potent causes of continuing collective action. But back of all secondary stimuli, products of past social life, are primary or original stimuli presented to every mind by the multiplicity and presence of fellow beings, by the events and the order of nature, and by the concrete objects of nature. These collectively are the environment, human and physical, and the human is determined by the physical. As physical environments differ in fundamental character and in complexity, so differ the original stimuli to which the minds of men respond in pluralistic behavior, including collective action.

Accepting the distinctions that have been drawn between static and kinetic situations, and between primary and secondary stimuli we apprehend the prime requirement laid upon social theory. A scientific theory of social causation must first give full recognition and weight to the facts (1) that regional influences of the static sort usually stimulate behavior (when they do stimulate it) through a medium of circumstance rather than immediately, and (2) that all stimuli of the primary order, including regional changes, usually stimulate behavior (when they do stimulate it) through a social medium created by antecedent stimulation. Theory must then determine what are the possibilities and limits of response to primary stimulation, and, thereby, determine the possibilities and limits of secondary stimulation.

In trying to formulate (at least tentatively) a theory scientific according to these specifications, we necessarily begin with an attempt to discover what features of the physical habitat of a human population are significant, and through what channels or groupings of concrete fact they exert their controlling influence.

The earlier theories of the relation of environment to national life and character placed emphasis upon the direct influence of soil, climate and topography upon mental and institutional life.

Montesquieu hardly got beyond this simple view of the problem. He attributes a relatively great boldness to the inhabitants of cold climates, and to boldness he attributes frankness and a lack of suspicion and cunning. To the enervating influence of great heat, and the deliciousness of rest in a hot climate, he attributes the belief of the Hindoo that "repose and non-existence are the foundation of all things, and the end in which they terminate." From these temperamental effects of climate Montesquieu thought that he could derive systems of laws and institutions. His observations, nevertheless, were keen and significant, and doubtless much important scientific work is yet to be done in following out the suggestions in which the *Esprit des Lois* abounds.

Buckle, perceiving that the action of environment upon national life is more complex than Montesquieu represented it, laid emphasis upon those influences of nature that develop on the one hand the emotional, on the other hand the intellectual habit. Regions in which nature is uncertain, violent and destructive, especially where earthquakes, volcanic catastrophies and tempests abound, inspire terror and superstition, and thereby unfit the mind for scientific research and for the systematic conquest of the external world. Regions that are tractable, having seldom more startling occurrences than the regular succession of seasons and the relatively mild storms of the temperate zones, awaken an intellectual interest; and by suggesting a constant order in nature, they lead the mind on to scientific comprehension. Buckle also made the distinction between primary and secondary civilizations, and drew attention to the exceeding importance of the relation existing between any secondary civilization and that environment which is human and historical rather than physical. So, clearly enough, although without psychological analysis, Buckle discriminates between static regional influences and kinetic or circumstantial influences, and between primary and secondary stimulations.

Herbert Spencer, in the first volume of his *Principles of Sociology,* comprehensively reviews the influence of climates and topographies upon the emotional and the intellectual natures of men, and he calls especial attention to the relation of the flora and the fauna to the possibilities of social evolution. He lays chief stress, however, upon the human environment, since it is in the

relation of a tribe or a nation to its stronger or weaker neighbors that the causes determining its type of organization as military or industrial, seem to him to be found.

In the writings of Ratzell and of Ellen Churchill Semple we have expert studies extending and correcting our knowledge of the influence of persisting geographical features—including oceans and seas, islands and continents, coastal plains, river basins and mountain systems—upon the distribution and the pursuits of mankind. Ellsworth Huntington's studies of the profound and varied effects of the major rhythms of heat and cold, rainfall and dessication, upon the mutation, selective winnowing and migration of the human species have laid foundations of scientific history.

In studies that have taken the form of an economic interpretation of history, it is an indirect rather than a direct action of the environment that finds recognition. Situation and resources mould the social organization; first, by determining the character of the predominant industries; and, secondly, by determining the prevailing form of property, as real estate or free capital.

The theory that I submit here differs from all of these, but more by addition or supplement than by disagreement. I suggest that the really significant phenomenon is found in the relation of the physical environment to the composition of its population. My propositions are, first, that the character of the environment determines the composition of a population as more or less heterogeneous, more or less compound; and second, that the composition of the population determines the character, the complexity and the range, of its reactions to stimulation.

To develop these propositions, let us begin with a phenomenon very simple, very obvious, yet very far-reaching in its consequences. A physical environment has, or it has not, the power to attract inhabitants to itself and to keep them. In America we have witnessed the most remarkable example in human history of this immediate relation of population to environment. By hundreds of thousands men and women from the older lands have been drawn here by the bounty of nature, underlying that varied economic opportunity which this nation affords to its people. Quite as striking as the mere numbers of immigrants to America, however, is the varied composition of our foreign-born popula-

tion. Every nationality is included. But the geographical distribution of the foreign born has brought about a marked difference of one region from another in degree of compositeness. The North Atlantic division is heterogeneous in the extreme. The North Central division is relatively homogeneous, and the white population of the South Atlantic and South Central divisions is highly homogeneous.

Environments are of two fundamental types in respect of their power to maintain society; those that are so poorly endowed with resources that they can maintain and attract only relatively small numbers of inhabitants, and those that, being richly endowed, support large populations of the native born, and tend to draw a large immigration from elsewhere. Each of these types of environment, in turn, presents two well-marked subdivisions: the isolated, or difficult of access or of egress; and the accessible, a land of ports and open ways, through which the currents of population may easily flow.

The composition of the population can by no possibility be the same in these four types of environment. That which is characteristic of one is unattainable in another.

In the environment that is both poor and isolated, population is not only sparse, but it is relatively simple and homogeneous in composition. The struggle for existence is severe and the death rate of infancy and of age is high. A relatively large proportion of the living, therefore, is found in the middle age frequencies. The sexes are approximately equal numerically, unless female infanticide prevails. This population is maintained only by its birth rate, and it increases only if its birth rate is in excess of its death rate. It is a genetic aggregation, and is ethnically of one kind. Extreme examples of this environment and of the structure of its population are afforded by the coasts of Greenland, the Aleutian Islands, the southern extremity of South America, and the interior regions of Australia.

In the environment that is poor but accessible, or, what in this instance is more to the point, admits of easy egress, the population again is a genetic aggregation. The attractions and inducements are not sufficient to bring immigration. But neither are they sufficient in all cases to keep the men born within its borders, and,

escape being relatively easy, many of the most energetic emigrate to better lands, leaving not only unmarried women, but often also young mothers and children, and old people of both sexes. Here, in the concrete, the process of selection is seen going on through reaction to stimulus. The resources of other environments in some degree awaken the desire of all the inhabitants of the impoverished land, but only those that are relatively enterprising and energetic are moved to better their condition. The result is a gradual deterioration of the stock remaining in the land. It is bred from the leavings that have been incapable of efficiently responding to the stimulus of larger opportunities. The most interesting modern examples of such environments are those extensive tracts of upland or hill country in the North Atlantic states that once had prosperous farming populations, but now are inhabited only by unambitious families presenting the unmistakable marks of degeneration.

The third type of environment is that which is both rich in resources and relatively isolated or inaccessible. Parts of the Arabian peninsula, the Hawaiian Islands, the Samoan Islands, and the islands of Tahiti, are good examples. So also are the uplands of Mexico and Peru. Here again the population is a great kinship, a genetic aggregation. It is relatively dense. The birth rate is high, and every inequality of energy or ability counts in the struggle for existence. The people alike respond to the bounty of nature and develop those simple forms of economic activity that often are sufficient to create a fair degree of prosperity. The isolation of such a population while it lasts determines the whole course of social evolution, but it is relative. Sooner or later, or perhaps repeatedly at long intervals, it yields to migration. An increasing pressure of the native born upon the means of subsistence at length forces some of the more vigorous elements to break through confining barriers, and as conquerors, or otherwise, to seek distant homes; or the natural resources and the acquired prosperity enjoyed by the inhabitants become a stimulus of sufficient power to tempt distant populations to invade and exploit.

There remain environments of the fourth type, richly bountiful in resources and so accessible that men may flock to them from all

quarters of the world. Such are the great river valleys of the Nile and the Euphrates, seats of the most ancient civilizations; of the Po, the Danube and the Rhine, highways of the nations from an immemorial past; of the Seine and the Thames; and, in our own land, the Mississippi basin. Such also are many favored coasts, abounding in inlets and sheltering ports. In all such environments population must sooner or later be composite, normally so in age and sex, and variedly so in blood, and the more so if their resources are not only abundant, but also varied.

The composition, however, is determined in the long run by two cooperating processes. Aboriginal populations are overrun by invaders, who come not as individuals, but as organized bands, or armies equipped for conquest. Populations that have attained a measure of economic advancement are now and again overrun by hosts of ruder people that have been dwelling in relatively unkindly habitats. Further conquests also may follow, after civilization has been attained by both the invaders and the invaded, if the civilization of the invaders is still of the military type. When, however, industrial civilizations of the modern type have been reached, further migration is a movement of individuals.

It happens, therefore, that with few, if any, exceptions the populations of the most favored environments are both compound and composite; compound as being made up of successive strata of conquered and conquerors, and composite, as being made up of immigrant individuals scattered among the native-born. In time all of these elements are in some degree amalgamated. The amalgamation of invaded and invaders, however, is determined largely by the physical characteristics of the region itself. If they are such as to tempt the invaders to scatter themselves throughout the land as local overlords, while at the same time maintaining a general distribution of the invaded or conquered, the possibilities of amalgamation are far greater than when for any reason either stratum is geographically concentrated. This seems to have been the history of the thorough-going amalgamation of Celtic and Teutonic elements in the midland and western counties of England.

When an immigration of individuals begins to bring important

additions to a compound population, the foreign-born element itself may be more or less composite. And this circumstance again is determined by the character of the physical environment. If the natural resources, while great, are all of one kind, and especially if they are predominantly agricultural, the inhabitants are far more homogeneous than if the resources are in mineral wealth, or, above all, if they are varied, including commercial and manufacturing opportunities. Practically, however, an environment of homogeneous resources is usually but part of a larger geographic unity that is occupied by one entire people, and that in the aggregate includes resources of varied kinds. This integral geographic unity inevitably has a population that not only is largely congregate, rather than genetic, in origin, but that also is in a high degree composite.

All of these variegations of composition observable in human populations are products of pluralistic reaction to stimulation. How do they, in their turn, limit and determine the possibilities of further reaction?

In the first place, they set the character of reaction as vigorous and adaptive, or not.

The adolescent, and the mature who are yet in early middle life, normally react quickly, and are capable of reacting strongly and persistently; the old notoriously are not only slow but also easily and frequently discouraged. The young respond to novelty and delight in it: to the old, notoriously, it is one more weariness to the flesh. Usually it is the new to which adaptation must be made, and the population in which the young are relatively few is therefore relatively non-adaptive. Because of these and other influences, among which heredity is chief, regional populations are unequally alert and unequally adaptive, and when emigrants from them are merged in a heterogeneous population in process of aggregation, the proportions in which they are combined determine the quality of its reactions; temporarily, as far as the effects of age distribution go, permanently, as far as the influences of heredity extend.

In the second place the ethnic composition of a population prevents or it permits a relative complexity of total reaction.

A population homogeneous in blood is made up of individuals who, in a general way, have undergone similar experiences and have survived the same selective winnowings. Their reaction mechanisms are alike. This means, not only that they react in like manner to a common situation, but also that their reactions are not complicated by necessities of adjustment to the different reactions of neighbors and competitors. The total reaction is simple, while, by contrast, the total reaction of a population made up of differing nationalities or races is inevitably complex. The reaction of each ethnic element is affected by this more or less dissimilar reaction of each other element, not necessarily through media of example and imitation, which may or may not play a part, but always by necessities of adjustment. American life abounds in examples, one of which will suffice. Reaction to an epidemic, by a local population made up preponderantly of the native born of native parents, is simple and straightforward. It does or it does not proclaim and observe scientific precautions, according as it is or is not enlightened. The reaction of a neighboring population, composed of native "old settlers," immigrant English, immigrant Irish, and immigrant Slavs or Italians is complex and devious, not merely because the reactions are different, but because efforts are made to work out adjustments.

In the third place, the degree to which a population is composite determines the range of its total reaction.

No individual can react to all stimuli; but to stimuli to which one is unresponsive, another, different, individual may be sensitive. In like manner, indeed by consequence, one homogeneous group, or population, may be incapable of reaction to situations that provoke other groups to immediate and prolonged effort, although each of them has its own incapabilities. Combined in a heterogeneous population these groups contribute their various potentialities to a large total. The more there are of them, the more composite the population is in which they are merged, the wider is its range of possible reaction to stimulation.

Finally, in a homogeneous population a majority of all individuals may respond with like behavior in nearly every one of the relatively few situations to which they can respond at all, and the stimuli are not necessarily powerful. The component groups

of a heterogeneous population can react with like behavior in only a few of the many situations to which they can respond variously and the stimulation must be strong. The kith and kin of the New England town in which I was born fished alike, whittled alike, chewed tobacco alike, pitched hay alike, talked politics alike at the store, and sang psalm tunes alike at church. The human millions, of all nations and races, that compose the stupendous city in which I write now behave in every manner known to man, and in the same manner only on election night or when the prize fight is bulletined, or when the mercury goes above 90 degrees.

The consequences of these determinations of reaction by environment and circumstance and by the composition of the reacting population, must now be followed out.

CHAPTER IX

THE MIND OF THE MANY

THE phrase is a figure of speech. If we must be literal there is no "Mind of the Many." Literally there is no "group mind" or "social mind." However, when Henry Osborn Taylor writes a book on *The Mediæval Mind* no one is made to believe that a period of time has a mind in the same sense in which Mr. Taylor has a mind. The mediæval mind was a prevailing attitude and a customary performance of European minds a thousand years ago. The mind of the many at any time or anywhere is a prevailing attitude and usual performance of enough minds then and there alive to be called "many." And inasmuch as performance or functioning is correlated with the make up (with the composition and the constitution) of the thing that functions, it is accurate to say that the mind of the many is a *kind* of minds, reacting at a given time to a common situation or circumstance, and perhaps inter-acting one with another.

A situation or circumstance, as has more than once been remarked on foregoing pages, is a lot or combination of stimuli to psychological goings on. Reacting to it are "irritable" organisms. The word quoted is technical in physiology: "irritability" is a quality of living matter. If only one organism reacts, I call the phenomenon "singularistic." If two or more organisms react to the same stimulation at approximately the same time, I call the phenomenon "pluralistic." Leaving plant organisms out of consideration (for our present purposes) the two major kinds of reacting organisms are animals and human beings. Within each major kind are minor kinds (species or varieties); and within each minor kind there are gradations: that is, the organisms are more or less highly organized, their reactions are more or less complex.

The higher animals and man exhibit also "sensitivity."[1] Man

[1] "Irritability" and "sensitivity" are often used interchangeably in psychology, but they should not be.

feels pain, and the higher animals appear to feel it. Man consciously has sensations and memories, and the higher animals seem to have them. Man consciously has ideas, and the higher animals perhaps have a few simple ones.

All reactions of irritable matter to stimulation are physiological behavior. All reactions of organisms as units (or individuals) are psychological behavior. Sensitive (and conscious) organisms may be described as *mentalized organisms*. For brevity we call them minds. The behavior of reasoning minds we are in the habit of calling conduct.

Every human being learns a good deal about himself as a mind by consciously looking at and into his own mental processes, that is to say, by introspection; but he cannot by this method become acquainted with the mind of his neighbor. All that we know about the minds of fellowmen we learn from their conduct. This is why there can be no other psychology *of society* than the behavioristic. A subjective psychology *of the individual* is possible, but it is scientific and significant only as its facts are correlated with behavior, both singularistic and pluralistic. This means that we cannot explain society in terms of an individualistic psychology, but must, on the contrary, explain an individualized mind (a person) as a product of society.

Viewed as reaction to stimulus all behavior, both animal and human, unconscious and conscious, is mechanistic. Reflexes are reactions of relatively simple nervous mechanisms. Instincts are reaction tendencies, normally completed in reactions, of relatively complex mechanisms.[1] Reflex and instinctive reactions are now and then set going, however, by new stimuli (new to individual experience) that have become associated with old ones; they are "reconditioned";[2] and reconditioning is the beginning of the processes of learning. Reflexes and instincts are ready for business at birth; they are hereditary. Habits, on the contrary, are sequences and other combinations of responses that have in the first instance been learned by the fumbling called "trial and

[1] Woodworth, *Psychology*, p. 109.

[2] I have used this word (Intellectual Consequences of the War, *Transactions of the Royal Canadian Institute*, Vol. XII, Part I, May 1919, p. 108) and I use it here because, strictly speaking, the "conditioned reflex," (Pawlow) is *re*conditioned, and reconditioning is continually happening in all mental processes, including memory, imagination, and reflection.

error." They can be taught to successive generations but are not hereditary. Reasoning is a fumbling with ideas, an experimenting in thought preliminary to experimenting in doing. It is an enormous economizing of energy and averts countless disasters. Rational conduct is the complex reaction of nerve and brain mechanisms almost inconceivably complicated.

These elementary propositions are set down here only to suggest the depth of the background from which the mind of the many emerges. Consistently with them I shall assume that the category, "pluralistic behavior," is wider than the category, "the mind of the many," and that the wider category includes the narrower; and I shall use the word "mind" only in reference to psychological goings on in which (at least occasionally) consciousness is unmistakably manifested.

Antecedent, then, to the mind of the many are, first, that pluralistic behavior of unicellular bodies which was first adequately observed under experimental conditions and properly described by Jennings,[1] and second, the gregariousness of the higher animals, in which presumably the mind of the many has its beginnings.

The behavior of the lowest organisms is subinstinctive: no nervous mechanism is involved. Herd behavior is instinctive in part; in part it is a phenomenon of habit. Here we encounter a number of problems over which psychologists have fallen into disagreement, and which are fundamental for social theory.

To say that herd behavior is instinctive is not equivalent to saying that gregariousness is *an* instinct, and the second proposition does not follow from the first. If *an* instinct is the response of a particular and definite nervous mechanism, as the seizing of food is, as caterwauling is, as fighting is and as flight is, there is no gregarious instinct. Yet it is equally certain that pursuit of prey by a pack of wolves and a stampede of cattle are instinctive behavior.

The bare factual truth *so far* seems to be that a great part of gregariousness is nothing less and nothing more than *pluralistic instinctive reaction to common stimulation,* and that no scientific necessity drives us to assume a gregarious instinct distinct from

[1] *The Behavior of the Lower Organisms.*

and cooperating with the primitive instincts of food seizure and flight.

This is not the whole case, however. The individual members of a herd keep together or frequently get together. Often they show distress or terror if separated. And their cohesion is behavioristic: no material connective tissue holds them together.

Is such behavior an instinct? By strict definition, no: there is no gregarious instinct-mechanism. Is it instinctive? Perhaps, or perhaps it is subinstinctive. Possibly it is a multitude of responses even simpler than instinctive ones. I am convinced that it is. Like the behavior of the lower organisms it is essentially (there are adventitious complications) nothing more than reaction by the motor mechanisms of the body *along lines of least resistance.*

Every animal on countless occasions reacts to self-stimulation. He is excited by his own play, his own yelping, leaping and running. There is no conscious attempt to beat his own record, or to maintain it, such as human beings make, but the circle of stimulation and response is complete and closed within the individual organism, in the one case as in the other.

Herd-fellows are highly similar. They look alike, smell alike, bleat, bark and bellow alike, and they otherwise behave alike. Therefore, the stimulation that herd-fellow A gets from herd-fellow B is extraordinarily like the stimulation that he gets from himself. It is familiar not only in the sense that he is used to it, but also in the deeper sense that it has been familiar from the beginning. Therefore again, and further, it is *not repellant;* it does not ordinarily cause recoil or set going the instinct of flight. In contrast, stimulation from animals not of the herd, and from the outer world in general, does alarm, as often as not. There is then recoil, and the adventurer is thrown back upon his herd.

But if these facts (of pluralistic instinctive response to common stimulation, and reaction on lines of least resistance to inter-stimulation) sufficiently explain gregariousness, why, one may ask, are not all animals gregarious? The question is pertinent (we do not want our proofs of a theory to prove too much) but the answer to it is rather obvious. The food of herbivorous animals does not take fright and run away when scores of them at a

time tramp and mill about "all over the place." The food of carnivorous animals starts at a flicker, or the crack of a twig. Dogs and wolves are able, nevertheless, to capture it because they are swift of foot and can run incredible distances without exhaustion. Dogs and wolves, therefore, can hunt in packs and they do, but a considerable "drove" of tigers beating the jungle would starve. Cubs of the stalking carnivora snuggle together in sleep and play together when awake; it is of necessity that they separate when mature. The "herds" of lions now and then observed are small.

That primitive man was a consorting beast—a hunter in packs—is as nearly certain as any purely inferential fact can be. In *The Principles of Sociology* published in 1896 I argued at length that the human ancestor was not a solitary ape, but the ape's gregarious relative. The relative was not swift like the dog, but he had learned to use clubs and missiles, and with them to attack game bigger and stronger than himself, but slow. If this contention interested anybody very much I never heard of it, but subsequently the idea occurred to others who thought it important.[1]

Assuming that the human mind was developed in the hunting pack of pre-savagery, but remembering that adaptations and adjustments are not hereditary, we may now observe the genesis of the mind of the human many as it over and over occurs in successive generations of men, and under most varied circumstances.

In one of the great halls of the Metropolitan Museum of Art are grouped examples of the work of Rodin. Among them is "The Hand of God." Before it the stream of visitors divides. Many pass on, bestowing only a glance. Others stop, their attention arrested. Of these, a number linger, fascinated. For a time they are silent, they see only the hand. Then their glances wander to one another. They quicken with sympathetic understanding. One speaks, and reserve breaks down. In a moment all are talking. They know themselves to be, in appreciation of this beautiful thing, of one kind. A psychological group has been formed by pluralistic reaction to a common stimulation, by inter-

[1] Compare Carveth Read, *The Origins of Man and of his Superstitions.*

stimulation and responses thereto, and by awareness of a kinship of minds, manifested in similarity of behavior.[1]

The psychological group arising in mere like-response, may collectively begin to do something. The doing may be instinctive, or it may be premeditated. A purpose to do may be talked over and become concerted volition. Agreeing decision may become concerted action; which may be repeated, and become a folkway.[2]

In the codes of ancient law that have come down to us from peoples emerging from a tribal into a civic life, there are pictures of pluralistic response becoming concerted action that, by reason of their relative simplicity, enable us to see what happens more distinctly than we do when we observe the complex institutional activity of our own time. Of such pictures none more clearly reveals the psychology of it all than do the triads of Dyvnwal Moelmud, which are included in the *Ancient Laws of Wales.* The various occasions that draw men together in mote, or meeting are described. Here are examples:

5. There are three motes of mutual protection: an outpouring mote; mast gathering; and co-tillage. Herein the hand of everyone is required to assist according to his ability.

6. There are three horn motes: the assembling of the country by elders and chiefs of kindreds; the horn of harvest; and the horn of battle and war, against the molestation of a border country and strangers.

14. There are three motes of consociation: a convention of a country and elders, arranging the laws and judgments of a common country; bards as teachers of sciences, where they assemble in session; and the congress of a kindred, at a meeting for worship on the principal high festivals.

15. There are three motes of imminent attack: the inroad of a border country enemy; the cry, or the horn, of murder and waylaying; and a hamlet on fire: for assistance is required from everybody.

16. There are three horns of joint mote: the horn of harvest; the horn of pleadings; and the horn of worship.

17. There are three motes of commotion: the horn of the country; ships from a strange country effecting a landing; and the non-return of the messenger of a country and elders from a foreign country.

[1] For this luminous example I am indebted to my friend and colleague, Mr. Frank A. Ross.

[2] A folkway of superior grade, however. Simpler folkways not involving concurring decision after premeditation are mere like ways of behaving which have become customary.

18. There are three motes of request: for tillage; festal games; and burning of woods; for, upon a request, they are not to be impeded.

21. There are three motes of pursuit: after a wolf; after thieves; and after a mad dog; and all who shall hear the cry are to assemble together.

22. There are three outpouring motes: the approach of strangers without permission; the depredation of a border country; and a pack of wolves.

26. There are three motes of banishment: for murder and waylaying; treason against the state, or treachery to the country and kindred; and irretrievable spoliation; for it is required of everybody, of every sex and age within hearing of the horn, in the direction taken, to accompany the progress of that exile; and keep up the barking of dogs, to the period of putting to sea, and until the one banished shall have gone three score hours out of sight.

Without attempting now a systematic or even a full description of the mind of the many, I may hazard here a partially analytical account of certain important details.

The irritability of all organisms from the lowest up to and including man; the sensitivity of the higher animals (perhaps of all animals) and of man; the power to experience conscious sensations which presumably exists in all creatures that have organs of sense; the capacity for emotional feeling, the powers of conscious memory and of perception which men and the highest animals have; and the ability to reason which man enjoys—these are factors which, in combination constitute the *natural* ego: the hereditary, or original, nature of man.

By reacting to hard knocks; by fumbling and learning, by the acquisition of habits, the natural ego becomes in his individual lifetime and for its duration an *adapted* ego, better suited to his environment than he was when he was born because after adaptation he is in part a product of environment.

And this is but the beginning of reconditioning, of modification, of remaking. Both biology and psychology have answered a whimsical question propounded by Oliver Wendell Holmes:

> "Should I be I, or should I be
> One-tenth another and nine-tenths me?"

if my great-grandmother had married another suitor? Biologically it depends on who was which, or might have been which,

among my ancestral dominants and recessives. Psychologically, as Ribot, James and Baldwin a good while ago demonstrated, every human individual is largely a product of mental intercourse with other living individuals, and of memories (more or less reflected upon) of the deeds and the thoughts of the dead. The process substantially, as I see it, is this:

If the adapted ego and an *alter,* who also is an adapted ego, or if many individuals each of whom is an adapted ego, are so far alike in their reactions to fundamental stimulations that they dwell in proximity, or frequent the same places, they repeatedly knock up against one another. They stimulate one another and respond to one another. In human populations these processes are unimaginably more complicated than they are in subhuman herds. Interstimulation among men takes forms not only of accidental suggestion and example, but also of consciously intended suggestion and example; not only of unconsciously made and unanalyzed impression, but also of premeditated appeal and intended intimidation. Response takes forms of conscious imitation, of dramatization, of conversation, of discussion and of concerted action. Dramatization and conversation are particularly important. In the presence of a fellow being a conscious individual does not do things artlessly.[1] He enacts them. Conversation, which too often we think of as something other than behavior, is behavior in fact. It is objective, and states of consciousness peculiar to A or peculiar to B (which as feeling cannot be shared by ego and alter) *when talked about* by A and B become objects of thought to each, and can thenceforth be correlated by each with observed behavior. It is doubtful whether in the whole range of facts germane to both psychology and sociology there is any other thing more significant than the conversationalizing of consciousness. Through it and by means of it we develop our "ejective" interpretations of one another, which, without conversation, could not get far, or be other than vague.[2]

[1] He may unconsciously or self-consciously do them so artfully as to *seem* to do them artlessly.

[2] The term "eject" was first used by William Kingdon Clifford in a remarkable article, "On the Nature of Things in Themselves," which appeared in *Mind,* in January, 1878. Clifford's own definition of the word as there given was as follows: "When I come to the conclusion that *you*

The play of minds upon one another is a give and take which expands and enriches all: a "dialectic of personal growth," Mark Baldwin called it. Also, little by little, stage by stage, and in the long run it is an adjustment to one another made by mentalized organisms reacting to common stimulations, having like wants, and in like ways trying to satisfy them. Adjustment works out as toleration, which, among herding animals, is little if anything more than an equilibrium of fighting ability, but among men is premeditated and consciously practiced. Also, among men, it works out further in a formulation and observance of rights. Through give and take with fellowmen and through adjustment with them, the adapted ego becomes a *complicit* ego.[1]

The account of the making of ego by alter which Baldwin gives and from which I dissent, is both simpler than mine and different from it. "The dialectic of personal growth," Baldwin says, may be read thus: "My thought of self is in the main, as to its character as a personal self, filled up with my thought of others, distributed variously as individuals; and my thought of others, as persons, is mainly filled up with myself. In other words, but for certain minor distinctions in the filling, and for certain compelling distinctions between that which is immediate and that which is objective, the ego and the alter are to our thought one and the same thing."

To this I object first that it is inaccurate to say that "my thought

are conscious, and that there are objects in your consciousness similar to those in mine, I am not inferring any actual or possible feelings of my own, but *your* feelings, which are not, and cannot by any possibility become, objects in my consciousness. . . . But the inferred existence of your feelings, of objective groupings among them similar to those among my feelings, and of a subjective order in many respects analogous to my own,—these inferred existences are in the very act of inference *thrown out* of my consciousness, recognized as outside of it, as *not* being a part of me. I propose, accordingly, to call these inferred existences *ejects*, things thrown out of my consciousness, to distinguish them from *objects*, things presented in my consciousness, phenomena."

[1] I am now closely following the argument of an article on "The Psychology of Society," *Science*, January 6, 1899, in which I criticized Baldwin's "Social and Ethical Interpretations," contending that he had not made enough of that natural ego which is not a product of the dialectic, that he had failed to perceive the dominating importance of mental and moral relations with similars, and that in identifying the "matter" or stuff of social organization with "all kinds of knowledges and informations" (with "thoughts" in general) he was off the track altogether.

of self is, in the main, filled up with my thought of others," even if we admit "minor distinctions in the filling" and "certain compelling distinctions between that which is immediate and that which is objective." What are these compelling distinctions of the immediate? Obviously, they are those presentations in consciousness which arise from organic conditions rather than from mental intercourse with others. Hunger is a state of consciousness which can subvert the entire product of the "dialectic of personal growth"; and it will not do to ignore the fact that when men who have been amended and amplified by that dialectic are confronted by starvation, they are liable to have thoughts of self which can hardly be construed as filled up mainly with thoughts of others, unless we are prepared to accept a cannibal's definition of "others." Therefore we must continue to think of the individual as being essentially a natural ego, and at all times more natural and adapted than complicit.

A further and more important objection that I make to Baldwin's analysis is that the give and take in which the ego engages is not carried on indiscriminately or to equal extent with any alter. From the beginning of conscious life a tendency is manifest to discriminate between one alter and another, and development of the complicit ego is conditioned by a state of awareness which may be described as *a consciousness of similars or of kind.* The rise of this consciousness marks a distinct stage in the evolution of the mind of the many. Also *it converts mere gregariousness into society;* and it transforms further the already twice amended and doubly amplified natural ego.

The consciousness of kind, it is necessary to observe, is not an undecomposable or ultimate mental state. Sensations are the foundation of it. Ideas and emotions are mingled, perhaps blended, in it. Long before any discriminations of kind have become possible, a preparation for them and a tendency toward them is made in conscious experience. Of the sensations which first arise in consciousness, some are received from the bodily organism which the self inhabits; some are received from similar bodily organisms, and some are received from wholly unlike objects in the external world. Now we know that many sensations received from self are so nearly like sensations received from like

selves that, merely as sensations, they can be distinguished only with difficulty. If, for example, I strike with my voice a certain note of the musical scale, and another person a moment after strikes the same note with his voice, my auditory sensations in the two cases are nearly alike. If I cry out in pain, and then hear another man like myself cry out in pain, my auditory sensations are nearly alike; but if I hear a dog bark, the sensation is different from that which I have received from my own voice. If I walk with my friend down the street, and happen to notice the motion of my feet as I take successive steps, and then to notice the motion of my friend's feet, the visual sensations, in these two cases, are closely alike; but if I happen to notice the trotting of a horse that is being driven by me, the visual sensation is different from that which I have received in observing my own steps. If I stroke the back of my hand, and then stroke the back of my friend's hand, I receive tactual sensations that are closely alike; but if I then stroke the fur of a cat or the mane of a horse, or touch the paw of a cat or the hoof of a horse, I receive sensations very different from those received from the back of my hand. It therefore appears that before there is power to make discriminations of any kind, even to think of differences of sensation, sensations themselves fall into different groupings. At the very beginning of conscious life, certain elements which are to enter into a consciousness of kind begin to appear in experience. They consist of like sensations received from self and from others who resemble self.

On the basis of these experiences there are developed others that call for investigation from the same point of view. When suggestion begins to play an important part in mental life, are suggestions from persons very unlike self equally efficacious with suggestions from persons nearly like self? There is here a great field for investigation. A thousand familiar observations strongly indicate the superiority of suggestions that come from those whose neural organization resembles that of the person affected. Why, for example, does Maudsley venture to say, without offering the slightest proof, that, while men are as liable as silly sheep to fall into panic when they see panic among their fellows, they are not similarly liable when they perceive panic among sheep? Obvi-

ously, because facts of this general character are so familiar that no one would think of questioning them. Phenomena like these, of course, have their origin in a like responsiveness of like organisms to the same stimulus.

When power to make intellectual discriminations is attained, a perception of resemblances and differences begins to create objective science, to react upon pluralistic behavior, and to bias the intercourse of individuals. Objects of the external world are sorted and classified. "Men," "animals," and "plants," are early categories. In the folk lore of many lands the making and filling of them is the first brain work spoken of. "Whatsoever Adam called every living creature, that was the name thereof. And Adam gave names to all cattle, and to the fowl of the air, and to every beast of the field." The first sortings are by obtrusive features of size, shape and color. Then actions arrest attention, and men already sorted by size and color,[1] are sorted by speech and behavior. Last of all they are classified with reference to feelings, beliefs, tastes, sentiments, judgments and philosophies imputed to them. In all this classifying every individual assigns himself (in most instances with obvious satisfaction) to certain kinds, and, thanking God that he is not as other men are, excluding himself from their kinds.

These intellectual operations of discrimination and assignment react upon the sensory sympathy (I have called it organic sympathy) that has been described, and condition it by reflection. It becomes the complex sympathy (partly feeling and partly idea) that Adam Smith discoursed of in *The Theory of Moral Sentiments*. Even in the emotional madness of mob action the reaction of the perception of kind may be seen. When, for example, masses of men simultaneously respond to a party cry or symbol, the action for the moment is merely a like responsiveness to the same stimulus. An instant later, when each man perceives that, in this respect, his fellow beings are resembling himself in feeling and in action, his own emotion is enormously intensified. It is this which gives to all symbols and shibboleths their tremendous practical importance.

[1] Size and color are the peculiarities of white men first remarked upon by brown men on first acquaintance.

From the moment when the individual becomes intellectually aware of his kind (or kinds) he begins to pick and choose his familiars. He is acutely conscious of likes and dislikes, and develops countless prejudices. On the whole he likes best those fellowmen whose ways are his ways, whose foibles are his foibles, whose vices are his vices, whose virtues are his virtues, whose tastes are his tastes, and whose beliefs are his beliefs. His consorting becomes *a preferential association,* and this is the beginning of *society* in distinction from the *herd.* Ever since the derivatives of *socius* appeared in speech they have carried the denotation or the connotation, preferential association. Gregariousness began when plural offspring kept together instead of separating. Society began when the consciousness of kind first manifested itself in preferential association.

In association and through its exigencies, the ego takes on the subtleties, of feeling, attitude, and demeanor, that make him a comrade. Already a complicit ego, made so by gregariousness, he now becomes a *socialized* ego, made so by preferential association, a product of the consciousness of kind.

There are two further stages in the development of the ego which I shall only mention, without describing them or further accounting for them, in this place. Society becomes organized. Through its mores spontaneous society exerts a social pressure upon its component human units. Through its governments and laws organized society exerts a legal pressure. Reacting to these pressures the individual becomes a *societized,* or, to use a less accurate but more familiar word, a civilized ego. Organized society ameliorates the struggle for existence, thereby making possible a survival of human variates from type (if they are societized) that under harder conditions would perish. Varying from type, the human units of organized society also differ from one another. They are individual not only in the sense that each is an ego but also in the sense that each is in a degree peculiar, which is what we mean when we say that each has individuality. So, as the final product of social evolution, we get human personality, concrete in an ego that has been adapted, made complicit, socialized, civilized, and, in the end, *individualized.*

It should be clear by now why I cannot assent to the proposition that the "material" of society is all kinds of thoughts and "knowledges." The material of society is a plural number of concrete human beings so constituted that they think alike on matters of fundamental importance, behave alike in critical situations and, intellectually knowing that they so do behave, consciously count on one another to keep on so thinking and so behaving. Or, more briefly put, the material of society is a plural number of like-minded persons.

When, many years ago, I singled out like-mindedness as a phenomenon of preeminent importance for the theory of human society, I was careful to acknowledge my obligation for the idea to a source very old and immensely respectable.

Paul the Apostle was not only one of the most gifted men of any age, but also one of the most practical. He had been reared in Jewish formalism and had witnessed the beginnings of Roman imperialism before he participated in the organization of Christianity. Accepting the duties which circumstances and his own nature placed upon him as an interpreter and missionary of the new faith he gave heed to the social cohesion of its converts, and perceived in what it must consist. All of the older religions against which Christianity was to make headway had grown into elaborate social systems, with their priesthoods, their carefully graded ranks or classes of believers, their rituals and festivals, and against these the disciples had protested. Knowing, therefore, that the social unity of Christian believers must be more spiritual and spontaneously behavioristic than authoritative and legal, Paul saw that it must be the unity of like-mindedness. Therefore insistently in the *Epistles* he forces like-mindedness upon the attention of his readers, and warns them to give heed to it. "Be of the same mind one toward another," he says to the Romans; and in the same Epistle he prays for them, that they may be of the same mind; that with one accord and with one mouth they may glorify their God. The Corinthians he beseeches to "speak the same thing"; to "have no divisions" among them; that they may be "perfected together in the same mind and in the same judgment." And the Philippians he implores to "stand fast

in one spirit, with one soul"; to "be of the same mind, having the same love, being of one accord."

That it was in truth Paul who first seized upon this social phenomenon for practical purposes, we have proof. Only in two places outside of his writings can any allusion to it be found in either the Old or the New Testament. One is in the first epistle of Peter, where the expression "finally, be ye all like-minded" is so exactly the phraseology of Paul that we can hardly doubt that it was borrowed from him. The other is in *Revelation,* where ten kings are spoken of as having one mind. That the Apostle himself derived the suggestion from a Greek or a Roman source is probable. Plato in the passage quoted in Chapter VI observes how different is the behavior of "all kinds of people flowing together to the same point" from that of a community homogeneous in blood and speaking one language. Aristotle in the *Ethics* quotes the saying that "birds of a feather flock together," and recalls a contention of Empedocles that "like desires like." To Roman lawyers the "meeting of minds" was an essential factor of a contract. But, so far as we know, neither Greek nor Roman before Paul insisted as he did that like-mindedness is the effective cohesion and unity of discrete individuals for practical ends.

If he and those who anticipated his thought were right in this, we find in implications of their teaching a provisional definition of society and of its "stuff." The like-mindedness that is essential is known and understood for what it is by those who share it. They foster it, knowing its value. Not only do A and B agree in their thoughts, feelings, purposes; but also both A and B are aware of their agreement. Moreover, they perceive that agreement is pleasurable; that the fruits of concord are peace; that discord is not happiness and is likely to end in disunion. They strive, as enjoined, to be "perfected together in the same mind and in the same judgment." Obviously, then, it appears, a society is any number of individuals in a general way like-minded, or like-minded on a particular matter, who know and enjoy their like-mindedness, and are therefore able to work together for common ends.

The inhabitants of villages, cities and nations are like-minded in a general way, but usually tolerant of many differences that are not divisive and favorably disposed to any that function in

occupational specialization, the so-called division of labor. The members of artificial societies intentionally formed and maintained for particular purposes, the church for example, the political party, the business corporation, the scientific association, or the club, are like-minded in respect of the particular interests which these societies conserve or foster, and usually they are intolerant of attitudes inimical to the interests cherished.

Toleration of the modes and degrees of unlike-mindedness that are as necessary for social variation as fundamental like-mindedness is for cohesion and for stability, is always "within limits" of kind, degree and range. These do not necessarily, or perhaps usually, coincide with limits of desirability, but what the latter are has never been determined. Everybody except the fanatic and the moron can see that only if new types of character, new habits and ambitions, and new ways of thinking appear by mutation or are brought in, can a community undergo appreciable change for better or for worse; that only as individual men differ from their fellows can the church or the party adapt itself to new conditions; but beyond this all is guesswork, and experimental policies are shaped by conflicts of group and class interest, as these are played upon by winds of destiny. Scientific knowledge of this matter is presumably attainable; but at present we know only that the balance of like-mindedness over unlike-mindedness must be large for society to exist at all and that for orderly development a continually appearing unlikeness of behavior, of expressed purpose, feeling and thought, must be reconcilable with a great mass of established agreement, and in fact, be harmonized with it, and utilized.

By tolerated variegations of population and variations of behavior much social change is accomplished quietly and unobserved. Slight differences of nationality are assimilated; minor peculiarities of manner are imitated; modifications of opinion are effected; until, in time, a really important metamorphosis of society has taken place, and no one can tell exactly how. These from the first are things "of course" or of habit more than of emotion or of conviction, far more than of intellectual concern. They enter into tradition, partaking of its color, and mellowing in its atmosphere.

But, now and then, masses of men become consciously dissatisfied with existing conditions, and by combined action, consciously begun and intentionally kept up, bring about momentous changes in a relatively brief while. Such are revolutions, and occasional transformations inaugurated by governmental policy. Such, for example, were the Puritan rebellion in England, the American Revolution in 1776, the establishment of the French Republic, the ratification of the Federal Constitution of the United States, the abolition of negro slavery, and the communistic régime in Russia.

These comparatively swift overturns or metamorphoses are brought about in two ways: an impulsive, unreasoning social action, like that of the mob, is one; deliberation and discussion are the other. Of impulsive social action, sane men in their sane moments have a well-grounded dread. Not all the cruelties that have deliberately been inflicted by political tyrants and ecclesiastical councils can be compared with the horrors that have been perpetrated by irresponsible masses of men who have broken with tradition or ceased to reason about their social situation, and have surrendered themselves to the frenzy of emotion.

Scientific analysis of the conditions and processes of mob action can add nothing to the repugnance which calm-minded men feel toward collective outbreaks of the brute nature that still survives in man. Nevertheless, inventory and description contribute two elements of value to our knowledge of this subject. The first is the record of history that transition from violent talk to violent action is begun by irresponsible, quasi-criminal elements of the population. Riots, insurrections, revolutions, rarely begin with the striking of a well-directed blow by a disciplined force, under the command of a far-seeing leader. They start with assaults, thefts, and homicides, with volleys of stones, with random shootings and stabbings, with the looting of shops, and the lynching of opponents. To mention but one among countless instances, the Crusades, a true epidemic craze, did not begin with the setting forth of armed expeditions under Godfrey of Bouillon, Hugh the Great, Robert Curthose, Count Robert of Flanders, Prince Boehmond of Tarentum, and Count Raymond of Toulouse, in the year 1097. They began with the three unorganized crusades of the preceding year, under Walter the Penniless, whose twenty thou-

sand followers, described as the dregs of Christendom, filled Bulgaria with robbery and murder, until they were themselves slaughtered in the storming of Belgrade; under Peter the Hermit, whose rabble of forty thousand men, women, and children was hardly better in character; and under the German priest, Gottschalk, whose fifteen thousand followers from Strassburg, Worms, and Mayence inaugurated their pilgrimage by massacring Jews in the valley of the Rhine. Collective conduct of this kind, whether it develops into revolutionary "terrors" to culminate in the devastation of an empire, or becomes a folkway, like lynching in America, admits of but one interpretation. It means that the unchaining of the wild beast in man, which is often spoken of as a result of mob action, is not its result at all, but its beginning; and that a fearful responsibility rests upon those men and women who, while believing in rational deliberation, and justly dreading epidemic emotion, look tolerantly upon the initial stages of social excitement, or carelessly permit themselves to contribute to it, in the unwarranted belief that they can turn to and check it when it begins to go too far.

The impossibility of checking, until it has run its course, any mob action that has once gathered headway, has fully been established as a demonstrated sociological principle; and this is the second element which a scientific description of society adds to our knowledge of the non-reasoning or impulsive modes of social transformation. From the moment that habit and reason lose control over masses of communicating men, they fall under the power of example and suggestion; and emotional fury sweeps through them with increasing volume and accelerating velocity, as a conflagration sweeps through accumulations of combustible material. Impulsive social action, in short, proceeds not slowly through the mass, as water filters through sand, but with the acceleration of a geometrical progression. This law is no more open to doubt than is the law of gravitation, and no fact of social knowledge is more sobering. The only way to prevent the devastating consequences of epidemic madness is to multiply in the community the number of those men who habitually subordinate feeling to morale or to reason, and who, therefore, cannot become a part of the combustible material of the mob spirit.

If these things are true, it is certain that as far as well-being depends upon human intention and the putting forth of human will to supplement the slow accumulation of minute changes that are imperceptibly effected, we must look chiefly to the agency of deliberation. What, then, are the conditions under which reason functions in social affairs and establishes morale? What are the conditions under which deliberated behavior is encouraged, and the proportion of emotional, fanatical, hypnotizable, impulsive behavior is diminished?

These questions may best be answered by converting them into a negative form. Under what conditions are irrationality, hypnotic susceptibility, willingness to follow without question or resistance any suggested course of action, most likely to prevail? Are we tolerant of influences or agencies, whose certain tendency is to break down morale and give rein to impulse? The answer is disturbing but not disputable. For generations society has permitted, not to say encouraged, in the name of religion, the practice of arts that menace happiness and social order. A certain type of the professional revivalist plays upon ignorance and upon fear. A certain type of the revival meeting is, and always has been, a school of ill-considered action. Throughout history a kind of revival in which reason is denounced, anathematized, and submerged under billows of crazing emotion, has been a foster-mother of the mob.

No sane person can witness the occurrences of a negro revival in the South, or read of the similar occurrences that took place during revival epidemics that swept westward from the Atlantic seaboard in 1837 and in 1857, or listen to the preaching of some of the more popular of contemporary revivalists, without being convinced of the truth of these propositions. The methods of the professional revivalist are those of the professional hypnotizer, even when they are more refined, and keep their machinery out of sight. The professional revivalist tells his hearers that their reason is the most deadly enemy of their souls; that the deliberating, critical habit of mind endangers eternal salvation; that safety lies in acting immediately upon the impulse which he is striving to awaken in their bosoms. Such a teacher, addressing an audience of thousands in New York City, repeated as a model for

universal imitation the prayer of a man who besought God to crush his individual will, and make him a drift-log on the current of divine purpose. Men and women who surrender themselves to such teaching in the revival will not act coolly, reasonably, and courageously in the affairs of secular life. Those who yield to the impassioned appeal of the exhorter, will not be unmoved by the harangue of the partisan orator, or resist the impulse to follow blindly the lead of the "boss" who, like his religious preceptor, exacts unquestioning obedience. As long as the grosser forms of revivalism are possible, the protection of society against epidemic madness, and the overthrow of "bossism" of the brutal sort will be impossible. It is unreasonable to believe that we can make men irrational, impulsive, hypnotic creatures for the purposes of religion, and then find them cool-headed, critical, rational men for the purposes of politics.

When reason controls the social situation, deliberation consists largely in a review and criticism of social values; one of the highest enterprises in which the rational intelligence can engage.

By the term "social value" I mean a regard or esteem for any social habit, relation, or institution which makes men cherish and defend it. In the long run, social values are measured, as economic values are, by the sacrifices that men make for them. The measure of the value that we attach to civil liberty is found in the sacrifices that we make to maintain it. The measure of the value that we attach to any ancient usage or institution which, in some degree, obstructs the later developments of our social system is the sacrifice of new possibilities that we submit to, rather than witness the destruction of things that we long have admired or revered.

Social values, like economic values, are determined in part by comparisons that theoretically should be extended throughout the entire range of possible utilities and costs. It would be worth while for the individual, if he were well enough informed and sufficiently in control of his impulses and prejudices, to estimate accurately every utility and every cost which enters into his calculations. It would promote the general welfare if society could estimate accurately the utility of every social institution, of every cherished usage or custom, and, with equal accuracy, the sacrifices, not only of the time and money of individuals, but also of

possible developments on new lines of progress, which must be made in order to maintain the old; or, taking the other point of view, if it could estimate accurately how much of the old must be sacrificed to secure the new. Therefore, the rational process in social development consists chiefly in that criticism of all our social values which enables us wisely to choose among them.

Objects of social esteem are ends to be attained or they are means to attainment. Here, again, we find analogy with economic categories, since economic goods are either goods for final consumption, or the means of production which we describe as capital. The ends that we strive to attain in society are not essentially different from those that we strive to attain as individuals. The objects of endeavor, whether of individuals or of communities, are life, happiness, and the development of our rational personality. Society itself is a means. Philosophy cannot set aside or improve upon the Platonic and Aristotelian dictum that the state exists for the good life. Yet no truth is more frequently lost sight of in personal conduct or in public policy. Nothing is so hard for the partisan to see and admit as that his party is only an instrumentality, and that it cumbers the ground when it no longer promotes the end for which it was instituted. Nothing is more difficult for men and women in general than to see and admit that customs, usages, institutions, parties, churches, creeds, have no sacredness in themselves, and that there is no other warrant for their existence than may be found in their power to contribute to the safe and comfortable maintenance of human life, or to the advance of the human mind in knowledge and command.

The conditions under which means in use are effectively combined for the promotion of ends in view have been set forth in part, and now must be considered further. Institutions have become what they are through historical processes of evolution, and cannot instantly be made over or re-correlated. Also, they are related in definite ways to like-mindedness and to variability. The criticism of social values must proceed in presupposition and recognition of these conditions.

CHAPTER X

THE GROUP-MAKING RÔLE OF IDEAS AND BELIEFS

Conflicts and contradictions among ideas and beliefs are of various degrees and of various modes besides that specific one which we call logical incompatibility. A perception, for example, may be pictorially inconsistent or tonically discordant with another perception; a mere faith unsupported by objective evidence may be emotionally antagonistic to another mere faith, as truly as a judgment may be logically irreconcilable with another judgment. And this wide possibility of contradiction is particularly to be recognized when the differing ideas or beliefs have arisen not within the same individual mind, but in different minds, and are therefore colored by personal or partisan interest, and warped by idiosyncrasy of mental constitution. These intermental conflicts are more extensive and more varied than the logical duels that are intramental; they are also less definite, less precise. In reality they are culture conflicts, in which the opposing forces, so far from being specific ideas only, or pristine beliefs only, are in fact more or less bewildering complexes of ideas, beliefs, prejudices, sympathies, antipathies, and personal interests.

Any idea or group of ideas, any belief or group of beliefs, may happen to be, or may become, a common interest, shared by a small or a large number of like-minded or potentially like-minded individuals. It may draw and hold them together in bonds of acquaintance, of association, even of cooperation. So it may play a group-making rôle. Contradictory ideas or beliefs, therefore, may play a group-making rôle in a double sense. Each draws into association the individual minds that entertain it or find it attractive. Each also repels those minds to whom it is repugnant, and drives them toward the group which is being formed about the contradictory idea or belief. Contradictions among ideas and beliefs, then, it may be assumed, tend on the whole to sharpen the lines of demarkation between group and group.

These assumptions are, I suppose, so fully justified by the everyday observation of mankind, and so confirmed by history, that it is unnecessary to discuss them, or in any way to dwell upon them; but it should be not unprofitable to inquire what kind or type of groups, distinctive ideas and beliefs and the inevitable contradictions among them are likely to create and to maintain within the progressive populations of the world, from this time forth.

Somewhat more than three hundred years ago, Protestantism and geographical discovery had combined to create conditions extraordinarily favorable to the formation of groups or associations about various conflicting ideas and beliefs functioning as nuclei; and for nearly three hundred years the world has been observing a remarkable multiplication of culture groups of two fundamentally different types. One type is a sect, or denomination, having no restricted local habitation, but winning adherents here and there in various local communities, provinces, or nations, and having, therefore, a membership either locally concentrated or more or less widely dispersed; either regularly or very irregularly distributed. The culture group of the other type, or kind, is a self-sufficing community. It may be a village, a colony, a state, or a nation. Its membership is concentrated, its habitat is defined.

To a great extent, as everybody knows, American colonization proceeded through the formation of religious communities. Such were the Pilgrim and the Puritan commonwealths. Such were the Quaker groups of Rhode Island and Pennsylvania. Such were the localized societies of the Dunkards, the Moravians, and the Mennonites.

As late as the middle of the nineteenth century, the American people witnessed the birth and growth of one of the most remarkable religious communities known in history. The Mormon community of Utah, which, originating in 1830 as a band of relatives and acquaintances, clustered by an idea that quickly became a dogma, had become in fifty years a commonwealth *de facto,* defying the authority *de jure* of the United States.

We are not likely, however, again to witness a phenomenon of this kind in the civilized world. Recently we have seen the rise and the astonishingly rapid spread of another American religion,

namely, the Christian Science faith. But it has created no community group. It has created only a dispersed sect. It is obvious to any intelligent observer, however untrained in sociological discrimination he may be, that the forces of Protestantism, still dividing and differentiating as they are, no longer to any great extent create new self-sufficing communities. They create only associations of irregular geographical dispersion, of more or less unstable or shifting membership. In a word, the conflicting-idea forces, which in our colonial days tended to create community groups as well as sects, tend now to create sectarian bodies only—mere denominational or partisan associations.

A similar contrast between an earlier and a later stage of culture group-making may be observed if we go back to centuries long before the Protestant Reformation, there to survey a wider field and a longer series of historical periods.

It is a commonplace of historical knowledge that in all of the earliest civilizations there was an approximate identification of religion with ethnic consciousness and of political consciousness with both religious and race feeling. Each people had its own tribal or national gods, who were inventoried as national assets, at valuations quite as high as those attached to tribal or national territory.

When, however, Roman imperial rule had been extended over the civilized world, the culture conflicts that then arose expended their group-creating force in bringing together like believers in sectarian association. Christianity, appealing to all bloods, in a measure to all economic classes, and spreading into all sections of the eastern Mediterranean region, did not to any great extent create communities. And what was true of Christianity was in like manner true of the Mithras cult, widely diffused in the second Christian century. Even Mohammedanism, a faith seemingly well calculated to create autonomous states, in contact with a world prepared by Roman organization could not completely identify itself with definite political boundaries.

The proximate causes of these contrasts are not obscure. We must suppose that a self-sufficing community might at one time as well as at another be drawn together by formative beliefs. But that it may take root somewhere and, by protecting itself

against destructive external influences succeed for a relatively long time in maintaining its integrity and its solidarity, it must enjoy a relative isolation. In a literal sense it must be beyond easy reach of those antagonistic forces which constitute for it the outer world of unbelief and darkness.

Such isolation is easily and often possible, however, only in the early stages of political integration. It is always difficult and unusual in those advanced stages wherein nations are combined in world-empires. It is becoming well-nigh impossible, now that all the continents have been brought under the sovereignty of the so-called civilized peoples, while these peoples themselves, freely communicating and intermingling, maintain with one another that understanding which constitutes them, in a certain broad sense of the term, a world-society.

The proximate effects also of the contrast that has been sketched are generally recognized.

As long as blood, sympathy, religious faith, and political consciousness are approximately coterminous, the groups that they form, whether local communities or nations, must necessarily be rather sharply delimited. They must be characterized also by internal solidarity. Their membership is stable, because, to break the bond of blood is not only to make oneself an outcast, but is also to be unfaithful to the ancestral gods; to change one's religion is not only to be impious, but is also to commit treason; to expatriate oneself is not only to commit treason, but is also to blaspheme against high heaven.

But when associations of believers, or of persons holding in common any philosophy or doctrine whatsoever, are no longer self-sufficing communities, and when nations, composite in blood, have become compound in structure, all social groups, clusters, or organizations, not only the cultural ones drawn together by formative ideas, but also the economic and the political ones, become in some degree plastic. Their membership then becomes to some extent shifting and renewable. Under these circumstances any given association of men, let it be a village, a religious group, a trade-union, a corporation, or a political party, not only takes into itself new members from time to time; it also permits old members to depart. Men come and men go, yet the associa-

tion or the group itself persists. As group, or as organization, it remains unimpaired.

The economic advantage secured by this plasticity and renewableness is beyond calculation enormous. It permits and facilitates the drafting of men at any moment from points where they are least needed, for concentration upon points where they are needed most. The spiritual or idealistic advantage is not less great. The concentration of attention and of enthusiasm upon strategic points gives ever-increasing impetus to progressive movements.

Let us turn now from these merely proximate causes and effects of group formation, to take note of certain developmental processes which lie further back in the evolutionary sequence, and which also have significance for our inquiry, since, when we understand them, they may aid us in our attempt to answer the question, What kind of group-making is likely to be accomplished by cultural conflicts from this time forth?

The most readily perceived, because the most pictorial, of the conflicts arising between one belief and another are those that are waged between beliefs that have been localized and then, through geographical expansion, have come into competition throughout wide frontier areas. Of all such conflicts, that upon which the world has now fully entered between occidental and oriental ideas is not merely the most extensive; it is also by far the most interesting and picturesque.

Less picturesque, but often more dramatic, are the conflicts that arise within each geographical region, within each nation, between old beliefs and new—the conflicts of sequent, in distinction from coexistent ideas; the conflicts in time, in distinction from the conflicts in space. A new knowledge is attained, which compels us to question old dogmas. A new faith arises, which would displace the ancient traditions. As the new waxes strong in a region favorable to it, it begins there, within local limits, to supersede the old. Only then, when the conflict between the old as old, and the new as new, is practically over, does the triumphant new begin to go forth spatially as a conquering influence from the home of its youth into regions outlying and remote.

Whatever the form, however, that the culture conflict assumes, whether serial and dramatic, or geographical and picturesque, its antecedent psychological conditions are in certain great essentials the same. Men array themselves in hostile camps on questions of theory and belief, not merely because they are variously and conflictingly informed, but far more because they are mentally unlike, their minds having been prepared by structural differentiation to seize upon different views and to cherish opposing convictions. That is to say, some minds have become rational, critical, plastic, open, outlooking, above all, intuitive of objective facts and relations. Others, in their fundamental constitution have remained dogmatic, intuitive only of personal attitudes or of subjective moods, temperamentally conservative and instinctive. Minds of the one kind welcome the new and wider knowledge; they go forth to embrace it. Minds of the other kind resist it.

In the segregation thus arising, there is usually discoverable a tendency toward grouping by sex.

Whether the mental and moral traits of women are inherent and therefore permanent, or whether they are but passing effects of circumscribed experience, and therefore possibly destined to be modified, is immaterial for my present purpose. It is not certain that either the biologist or the psychologist is prepared to answer the question. It is certain that the sociologist is not. It is enough for the analysis that I am making now if we can say that, as a merely descriptive fact, women thus far in the history of the race have generally been more instinctive, more intuitive of subjective states, more emotional, more conservative than men; and that men, more generally than women, have been intuitive of objective relations, inclined therefore to break with instinct and to rely on the later-developed reasoning processes of the brain, and willing, consequently, to take chances, to experiment, and to innovate.

If so much be granted, we may perhaps say that it is because of these mental differences that in conflicts between new and old ideas, between new knowledge and old traditions, it usually happens that a large majority of all women are found in the camp

of the old, and that the camp of the new is composed mainly of men.

In the camp of the new, however, are always to be found women of alert intelligence, who happen also to be temperamentally radical; women in whom the reasoning habit has asserted sway over instinct, and in whom intuition has become the true scientific power to discern objective relations. And in the camp of the old, together with a majority of all women, are to be found most of the men of conservative instinct, and most of those also whose intuitive and reasoning powers are unequal to the effort of thinking about the world or anything in it in terms of impersonal causation. Associated with all of these elements, both male and female, may usually be discovered, finally, a contingent of priestly personalities; not necessarily religious priests, but men who love to assert spiritual dominion, to wield authority, to be reverenced and obeyed, and who naturally look for a following among the non-skeptical and easily impressed.

Such, very broadly and rudely sketched, is the psychological background of culture conflict. It is, however, a background only, a certain persistent grouping of forces and conditions; it is not the cause from which culture conflicts proceed.

Always one and the same throughout the ages, although in the course of human history it has assumed endlessly varied outward shapes, the cause of all conflict, cultural, economic, juristic, political, has slowly fashioned also their psychological factors. From the dawn of life until now the alternative has ever and again confronted living things, to change their habits or die. By far the greater part of them have prematurely died because they could not change. Of the survivors, the greater part have lived on because they have changed unconsciously. To a very few, of the human kind, it has been given to know before the event that change must come. They have perceived in time the shifting of external relations, and this perception has been the fearsome New Idea that has set man at variance against his father and the daughter against her mother, that has brought not peace on earth, but the sword.

And from the beginning it has literally been true that a man's foes have been they of his own household. Sheltered in some

degree in the struggle for existence, women have rarely felt, as men have felt, the first staggering shock of new conditions. They have rarely been compelled to change their outlook and their way of life as unexpectedly and decisively as men have had to change. They have been able therefore to cling longer to the established order, and to cherish for it a lingering sentiment, a deep affection even, that vigorous men have not been able fully to share.

From the beginning, therefore, whenever the necessity for a new adjustment of life to its conditions has arisen, a conflict between old and new habits, between old and new convictions, between old and new sentiments, has been precipitated, and it has arrayed the rationalistic or kinetic minds, chiefly men, against the instinctive or static minds, chiefly women.

Yet from the beginning another tendency also has been manifest. The approximate identification of static interest with woman and of innovating interest with man, never absolute, has become more and more imperfect.

In the dim past of the primitive age, when each sex had its own traditions and its own ritual, each was taboo to the other, except as the taboo could be broken by ceremonial magic.

Yet that primitive cult of the feminine, it is necessary to remember, always included men as well as women. Boys who could not endure the formidable initiation ceremonies that would admit them to the cult of the men, were consigned to the camp of the women, perhaps for life; were often compelled to don female costume and to remain with the women while their more stalwart brothers went forth to the chase or to war. As time went on, around this nucleus of women and effeminate men gathered an ever-enlarging accretion of men somewhat less feminine in mental constitution, although, on the whole, timid and conservative, and therefore antagonistic to a broadly masculine view of life. At length men of strong personality, dogmatic and authoritative, including old and clever men no longer fit for war, seeing their opportunity to establish dominion, threw in their fortunes also with the backward-looking multitude. In the camp thus constituted, there developed one general attitude toward life and conduct, one general scheme of piety and morals. In the boldly masculine camp there developed another. There, superla-

tively virile minds stood ready to dare new risks. Crudely and awkwardly but fearlessly experimenting, they perfected new adjustments and took the first infinitely difficult steps of human progress.

So, while priests and women created backward-looking religion and a punctilious morality of personal behavior, men of the daring mood—prophet and discoverer, warrior and reformer—created a forward-looking faith and fashioned the plastic secular structure of economic, juristic, and political relations.

From the moment that these differentiations are established, one new adjustment of human life to its changing conditions follows swift upon another. Culture succeeds culture. That which in its day and generation is practical and profane is transmuted into the sacred and ceremonial. That which today is faith, front-facing and alive, tomorrow will have become reminiscent religion, the sentimental worship of dead ideas, a thing of gentle memories and regrets.

For long ages, each new faith as it arises, each new economic and juristic order, is locally circumscribed. It cannot pass beyond the bounds of a rigid political organization, and these are identified with the blood of tribe or nation.

But, little by little, political integration is achieved, and as age after age goes by, each new culture finds a wider area open to it for possible extension. At the same time each is more and more restricted as a community-forming activity, because political integration makes isolation difficult. Thenceforward, each culture beats upon every other, each mingles with every other, until at length each blends with all.

The significance of this evolutionary process for our immediate question I conceive to be somewhat as follows:

We are practically at the end of the community-forming stage in culture conflict. Every vigorous group of ideas or beliefs in the world will henceforth have unhindered way to propagate itself geographically, to form vast associations of adherents.

The groups so formed will be indefinite. In the main they will be plastic. In the main their membership will be mobile and shifting.

That mobility is on all accounts to be desired. But while its

gradual increase is on the whole inevitable, it will, nevertheless, in some measure be restricted, and certain tendencies will be manifest toward the formation of relatively definite groups of relatively stable membership. The cause of these tendencies will be the effort which each of these contending forces will make to control and to use the police power of the state.

The police power has always a strictly regional or territorial application. A municipal ordinance is valid for that local area the population of which is incorporated as borough or city. The statute of the commonwealth applies throughout the territory of that state, but not elsewhere. The laws and administrative orders of a national government have force within its territorial boundaries, but not beyond.

It follows that to the extent to which the use of the police power for the achieving of any particular purpose is effective the population to which it is applied becomes a selected group. Opponents and misdemeanants are eliminated, or forced into conformity. It is, therefore, theoretically possible for idea-forces, including religious faiths and moral creeds, still to create community, as well as sectarian, groupings. How far it is practically possible is perhaps well enough illustrated by prohibition legislation in its various forms.

If now we wish to judge what use is likely thus to be made of the police power in culture conflict, we must call to mind the character of the chief groups of conflicting ideas at present arrayed against each other, and, as far as can be foreseen, likely to maintain their antagonism into an indefinitely distant future.

The chief culture conflict today is the world-wide struggle between scientific secularism on the one hand, and, on the other hand, the various cults of supernaturalism, obscurantism, and dogmatism. On the side of the cults are the forces of sentiment and inertia. On the side of scientific secularism are arrayed the forces of practical interest. Science makes its way with the multitude, not because the multitude is capable of understanding it, or even of greatly caring about it, but chiefly because the multitude sees that science does things. It safeguards the crops. It prevents or controls epidemics. It cuts down freight rates, and it transmits thought through pathless wastes of firmament and sea.

Now it is a peculiarity of scientific secularism—or profane practicality, if we prefer so to describe it—that, with all its power and prestige, it has not been disposed thus far to employ the police power to any considerable extent in furtherance of propagandism or any sort of social group-making. It has used it chiefly for general utilitarian ends as, for example, to enforce sanitation, or to prevent destructive forms of exploitation, like child labor. It has been distinctly opposed to any use of the police power to compel assent to a belief, to enforce a creed, or to establish any code of purely personal morals.

On the other hand, dogmatic supernaturalism has never cared greatly about utilitarian interests, since these are of the earth, and materialistic. But since the dawn of history dogmatic supernaturalism has unhesitatingly made use of the police power, whenever it has been in a position to do so, to compel assent to articles of faith, to enforce rules of purely personal conduct, and to establish ceremonial forms.

Therefore it is probable that to the extent that scientific secularism commands the situation, cultural association will be free.[1] To the extent that dogmatic supernaturalism, obscurantism, mysticism, are in any region dominant, we may expect them to use the police power to create group solidarity.

Much will depend, accordingly, upon the mental composition of the various regional populations. By this I mean that much will depend upon the predominance, in any given region, of one or another mental type. The inductive, critical, intellectual mind, intuitive of objective relations, turns naturally to scientific secularism. The mystical, emotional, subjectively intuitive, instinctive mind as naturally, indeed inevitably, embraces some highly respectable dogmatism with an impressive pedigree, or rushes upon a new-fangled miracleism.

It is to be regretted that we seem to have no quite appropriate descriptive name for these two types of mind. In the writings of European sociologists they are commonly designated as masculine and feminine, and the social dominance of one type or the other

[1] This I still believe to be true, notwithstanding all that has happened since 1914.

is called masculinism or feminism. This usage is sometimes carried to the point of labeling entire nations by sex-connoting terms. Germany, for example, was by Bismarck called a masculine nation, and Russia a feminine nation.

If the analysis of the two mental camps, radical and conservative, which I have presented in the foregoing pages, is substantially accurate, these sex-connecting tags are somewhat inappropriate and misleading. If we adopted them for scientific purposes, we should be compelled to say that the prophet, whether man or woman, is mentally masculine, and that the priest, whether woman or man, is mentally feminine. This might not mystify because, as a mere satirical conceit, the discrimination has long been familiar. But what would be said if we should apply this nomenclature to the business population of the United States? We should then be compelled to class as masculine the business minds of an engineering type—minds that weigh, measure, calculate, and plan, and to class as feminine all business minds that are incapable of grasping the conception of impersonal causation. This would be to say that American business men in general are woman-like, since they are unable as yet to find any better explanation of commercial crisis or industrial depression than the truly feminine hypothesis that the administration is to blame for it.

But while we cannot describe intellectualism as masculine, or instinctive dogmatism as merely feminine, we cannot, I think, afford to overlook the influence of so-called feminism when we try to predict which of the conflicting culture forces will probably be ascendant in civilized life in the near future.

As we see it today, feminism is difficult to analyze. Doubtless we may discover in it an effort by intellectual women to awaken large numbers of their sex to the rational life, to wean them from instinct, and to make their outlook increasingly objective. It appears, however, that in certain respects the woman's movement is so conducted as to defeat this commendable end.

When, for instance, women make up their minds to see things "from the man's point of view," how shall they go about it?

As far as the somewhat skeptical observer, like myself, can judge, they imagine that they are getting the masculine view when they draw men into the circle of their own projects and

enterprises, planned, organized, and conducted by themselves. I may be quite wrong in my interpretation of the facts, and I hold my opinion subject to revision, but at present I am sure that by this process of influencing and converting men, women get nothing whatever but an intensification of feminism. They get "the point of view" not of masculine men, but of two somewhat nondescript varieties; namely, first, those gentlemen who in their schoolboy days preferred daisies and buttercups to snowballs and "double rippers," and second, those authoritative persons who are but too glad to seize upon the opportunity thus afforded them to become the confessors and demigods of a worshipful sex. Such always are the men who lend themselves to those moral crusades which proceed on the assumption that there is only a quantitative difference between virtue of private vintage and the virtue that is squeezed and barreled at the public winepress.

To this particular skeptic now speaking, it appears that the person who at the present moment is commonly styled "the new woman" is of all women in civilized lands the most thoroughly primitive. So far from seeing life from the man's point of view, she has taken herself back to that most ancient camp of her sex from whose sacred ground all strictly non-feminine men were looked upon as scandalous and taboo.

On the other hand, it does not seem to this skeptic that woman necessarily gets the man's point of view by following "the good old way, the simple plan" of giving herself to him in the holy bonds of matrimony and bearing numerous sons to distribute his property.

In reality, her getting the man's point of view, if that is what she wants and is bound to have, depends altogether upon the kind of men, including father and brothers, husbands, sons, and acquaintances that she happens to consort with. If she is thrown with anabolic gentlemen only, she can never arrive at the masculine outlook. If her associations are with masculine men she will enjoy that outlook, if she is capable of seeing it.

Probably nothing can with so much certainty be counted on to bring women into contact with men of essentially masculine type as an intellectual education and the cultivation of intellectual interests in intellectual association and comradeship with men.

But this in my judgment is not to be achieved by the ordinary processes of college training only. Intellectual principles must be applied to life, and women must be associated with men in making the application. Of the many spheres of activity in which this may be done, the economic, the scientific, the literary, and the artistic are not to be despised. Yet, after all, the great realm in which intellectual principles can be and should be applied to life is the realm of politics, and possibly women in general will not see life quite as men see it until they fully participate in the obligations as in the privileges of the masculine Brotherhood of Machiavelli.

If such, however, is the truth, argument appears to end in dilemma, as indeed, most arguments on practical questions do. For it is not probable that if all women were at once to take part in political life, the forces of true radicalism, of scientific secularism, could make headway, or even hold their ground. What then would become "of the man's point of view"? The dogmatic program of using the police power of legislatures and the courts to compel uniformity of moral profession and pretense would in all likelihood be used to the uttermost.[1] We should have retrogression from free and plastic association toward local or community grouping on grounds—not perhaps of belief, as in bygone days, but at least of "good morals."

Happily, no such calamity need be apprehended. Great numbers of women are yet too wedded to tradition to become at once politically active. Those that accept political obligations will in a measure be transformed and broadened by them before the multitude of their sisters follows their example. Therefore, with some confidence we may still hold to the main conclusion that this survey of forces and tendencies of culture conflict has suggested. Political integration will not cease. Scientific secularism, not only through its appeal to the intelligence of modern man, but also through its sheer practical utility, will assuredly hold the ground it has taken and make further gains. Whatever its momentary victories, the old, in the long run, cannot overthrow the new, because its own inertia incapacitates it for continuous aggressive action. Therefore we may reasonably expect that the world of

[1] It is, in 1922.

social relations will continue from this time on to become less and less a congeries of static, solidaristic groups, and more and more a bewildering complex of free associations, through which the energies of mankind, responsibly economized, will freely create the things of human good.

CHAPTER XI

FOLKWAYS AND STATEWAYS

IDEAS, including group-making ideas, and policies, including policies of control, are carried out, or "realized," in collective action through two contrasting procedures, each of which uses characteristic means. One of them is without authority to command, although it now and then does command, and it is not governmental in form or power; the other commands, and it uses all arms of the political state to compel.

The value of non-governmental mechanisms and methods was emphasized in radical political theory and insisted on in radical practical politics long before their true nature was understood; long, indeed, before their history, variety and actual performance were known. Men temperamentally rebellious against authority and intellectually convinced that the government which governs least is best, looked to voluntary cooperation to initiate and carry on most of the enterprises of civilization. In particular, they objected to governmental meddling in business, they resented governmental dictation of private conduct, and they distrusted governmental activity in education. The classical formulations of this creed are Mill's *Liberty* and Spencer's *Social Statics.*

If one were looking for an example of how not to think about human behavior one could hardly hope to stumble upon anything better for the purpose than a political platform constructed out of *laissez faire* economics and utilitarian ethics. As an appeal to reason it gets the assent of not a few vigorous intellects, but the masses of mankind are not made up of vigorous intellects, and political parties have never been able to do a large scale business on appeals to reason. The Liberal party of Great Britain has been Benthamite and the Democratic party in the United States has been Jeffersonian on occasions, but theoretical consistency has not often strengthened them with electorates.

The practical politician has always known what the psychologist and the sociologist have been slow to learn, that "muddling through," as the Englishman (not without a touch of pride perhaps) is wont to describe the collective behavior of Britons, is a general practice. It has been the method of the human race throughout history. Even the Frenchman, with all his love of logic, has been experimental in the main. He has arrived at an approximately stable republicanism after trial of most of the possibilities of aristocracy and royal despotism, of revolution and communism, of dictatorship and militaristic imperialism.

This does not mean that voluntaristic cooperation has played a smaller part than government in human affairs. It has played an immensely larger part, but it has been a thing hit upon at random, an accumulation of accidental combinations of efforts, a slowly developed usage, and not in any considerable measure a reasoned contrivance.

Among the earliest scholarly studies of the history and prevalence of usage were Henry Sumner Maine's writings on custom. The first scientific account of its origin was Walter Bagehot's *Physics and Politics*. In that little book, one of the most valuable contributions to sociology ever made, the true character of custom is clearly exhibited, and its functioning in the collective struggle for existence is accurately described. In one particular, however, it leaves a wrong impression, as Maine's studies also did, namely that custom, the substance of early society, is superseded in later society by deliberation. This impression is conveyed also in a degree by Spencer's *Ceremonial Institutions*. How far from the whole truth it is we were made aware when William Graham Sumner published *Folkways*. In this further unique contribution to our knowledge of society, indispensably supplementing Bagehot, we learn how large and pervading is the part played in our most complex modern civilizations by modes of voluntaristic cooperation that began nobody knows when or how, that in most instances have been modified only with incredible slowness throughout the generations, and that are resistant now, as always hitherto, to rationalization.

The serious student of these matters must know his Bagehot and Spencer and Sumner at first hand. Not otherwise can he

attain appreciation and understanding of the infinite variety and complexity, the quality and the social functioning of the folkways and the mores: of all that we have called ceremony, usage and custom, manners and morals. I shall make no attempt, therefore, to summarize the matter here. Assuming on the part of my readers a sufficient acquaintance with it, I call attention to some of the more important particulars in which folkways differ from stateways (the governmental ways of states) and stateways from folkways, and to the ways (a highly important specialization of ways), in which these fundamental modes of human behavior react upon one another, setting bounds to the scope and the performance of each.

It is to be understood that while all prevailing modes of voluntary cooperation are folkways, not all folkways are modes of cooperation. Anything that everybody does is a folkway, and so is anything that most or even many persons do in any region for two, or three, or many generations.

When in 1888 I went to Bryn Mawr to live I found myself curiously interested one morning in "the green bag." On a train going into Philadelphia every commuting attorney and counselor-at-law was carrying one. In the Housatonic and Connecticut River valleys, where I had spent my childhood and earlier bread-winning years, I had never seen one, although I happened to know something about the history of the thing and the legal connotations of its name. Such localization of a folkway is one of the more obvious marks of its true character as a spontaneous or uncontrived product of the adaptations and adjustments of men to environment and circumstance . It is itself highly adaptive. It can extend widely by imitation, or so identify itself with the region in which it arose or to which it was transplanted that it remains unknown elsewhere. In contrast to this fundamental characteristic of folkways, stateways extend themselves aggressively. The state itself is an inclusive organization which proclaims authority over all individuals residing within defined geographical bounds, admitting them into its citizenship or governing them as aliens.

Because the folkway is adaptive it is variable, and folkways, therefore, become various, not only because new ways from time to time arise out of new circumstances and demands, but also through differentiation. One has only to call to mind the fluctuations of fashion, the changing forms of address and ceremony, the rise and fall of recreations, the fleeting fads in games and sports, to realize the enormous flexibility of folkways. Stateways tend toward uniformity. Governments attempt to standardize not only rights at law but also legal procedure, administrative rules, and the conduct of citizens. Legislators are intolerant of exceptions, bureaucrats abominate them, and courts, while finding precedents for them when moral justice or the rule of reason requires, do not otherwise make them. Trial by jury, however, which mediates between folkways and stateways, is a venerable if not always a venerated defense against the governmentalists, who would dictate and ration our food and drink, write our medical prescriptions, cut our clothes, tell us what we may read and look at, and send us to bed at curfew.

Stateways are instituted by command, backed up by physical force. They are formal, as machine-like as they can be made, and relentless. Folkways exert pressure which may be resistless, but it is indefinable, elastic and automatically variable.

At a seashore club of the quiet sort I remarked to a lady whose associations were with college folk and writers, that habitués there, most of them apparently intelligent, did not desecrate the place with intellectual conversation. "No," she replied with admonitory severity, "it isn't done." There you have the true folkway pressure, or control. The thing is done or it isn't, and you know (or you learn) which.

Means or devices are used, to be sure, but they are countless and protean. They range from silent approval or disapproval to taboo, from snubbing to bullying. In a majority of instances the lighter means suffice, but occasionally, in times of stress, especially in days of war or of industrial clash, more vigorous measures are resorted to. These include "drives," the boycott and slacking, the strike, property-destroying sabotage and violence, and, in last resort, the use of physical force in direct action. When this

happens the folkway is verging on revolution, which, in fact, is contemplated. The folkway then has become an incipient stateway.

In these latest named phenomena we come to the reactions of folkways and stateways upon each other.

Antecedent to revolution, and usually by warning preventive of it, are folkways of disregard and disobedience of law and of open opposition to government. These lower the state's coercive efficiency, and admonish it to reconsider its possibly unjust or inexpedient command, or its ruthless or arbitrary policy.

The assumption of pre-sociological political science that sovereignty is a power to compel obedience was never quite true and probably it never will be.[1] The dean of one of our most reputable law schools said to me, "You couldn't find a citizen of this or of any other American commonwealth who is not a lawbreaker." Whether or not he was right in his belief, it is true that no law ever enacted has been obeyed by all individuals in any group or class of citizens, however respectable. It is also true that a large proportion of all legislative enactments sooner or later fall into the "dead letter" category. Furthermore, drastic laws are openly contemned by great numbers of otherwise reputable citizens. Laws prescribing Sunday observance, laws like the Dred Scott decision maintaining slavery, laws forbidding discrimination on account of color, and laws prohibiting alcoholic drinks, are notorious American examples.

The dictum attributed to General Grant, often quoted and widely accepted, that the way to get rid of a bad law is to enforce it, may be good logic but it is not historical fact. Laws are repealed only when law breakers, and voters who would be law breakers if conscience or good sense would permit them to be, are numerous enough and courageous enough to upset legislative majorities. Often a highly provocative law cannot be repealed by this procedure because the necessary courage is lacking. Outspoken advocates of repeal are set upon as irreligious or immoral, as apologists for vice and crime, or as anarchists who want to destroy property and upset the social order. Such penalizing,

[1] See Giddings, *The Responsible State.*

which is meant to frighten off support by the timid, and usually does, is itself a folkway. It is powerless, however, against the folkways of clandestine disobedience, and when these flourish, disobedience presently ceases to be clandestine. Nothing further happens then, perhaps for generations, unless new attempts to enforce create enough irritation to provoke organized defiance, as happened in the case of slavery. In either case the objectionable law, whether quietly nullified or noisily defied is not done away with by due process of stateways, until these have been changed or mitigated by folkway pressure.

In all these instances, however, the folkways are attacked by the state, which may or may not prevail. If it does not prevail, it nevertheless impedes and limits folkway achievement. In particular it forbids and undertakes to repress the use in folkway action of physical force, which the state asserts its authority to monopolize.

These, then, are the normal reactions of folkways and stateways upon each other: folkways of disobedience nullify laws, and now and then defy the stateways; the state paralyzes disobedience when it can; and at any cost it makes vigorous effort to repress folkway violence.

Normally these contrary forces arrive at equilibrium. Ways of adjustment develop, and in these society attains a compromise of liberty with security. Out of trial and error a tradition of general consent grows up that the state shall use physical force to repel invasion, to put down rebellion, to repress organized violence and mob action, and to penalize crime. *No equally general consent is ever reached to the use of force by the state to repress vice and to correct negligence.* This province remains fighting ground where folkways and stateways contend. We are not without indications, however, of possible truce. When vice or negligence threatens social existence because folkways have failed to repress, or to meet urgent needs, action by the state is usually assented to; *but when folkways are presumably adequate to the occasion, objection to state interference and resentment against it, extend and deepen.* The possibilities of truce are measured, however, by the intelligence and the education of the population. To see when folkways—spontaneous, elastic, and adaptable—are

adequate to correct and superior to improve, and, conversely, to see when state interference is indubitably called for, is not given to ignorance or to stupidity.

The interactions of folkways and stateways are further exhibited in the next two following chapters.

CHAPTER XII

SOCIAL SELF-CONTROL

At a meeting of the inhabitants of Dorchester, Massachusetts, on October 28, 1634, it was "agreed that whosoever is chosen into any office for the good of the plantation, he shall abide by it or submit to a fine as the company shall think meet to impose." Less than a week later, on November 3, it was "ordered that no man within the plantation shall sell his house or lott to any man without the plantation whom they shall dislike of."[1]

In voting these measures the people of Dorchester only made definite and explicit a general policy adopted by all the early New England towns, and for a long time adhered to. No one was a franchise-exercising member of a town until he was formally admitted as a freeman, and at the outset church membership was a condition.

Historically interesting because of the conditions which it was intended to meet and because of the specific tests that were applied in carrying it out, this policy was not new or exceptional as a phenomenon of community action. Since human beings began to dwell together in groups and to work together in bands or companies, the groups and the bands have exercised supervision over their membership and over the conduct of their members. On a larger scale than elsewhere, or before in history, the United States, through its immigration and naturalization laws, exercises supervision over the membership of a national community; and our local state and federal laws probably comprise the largest body of rules of conduct ever enacted by a politically organized population for the regulation of individual life.

It is not for the purpose of recalling a chapter of American history, however interesting it may be in itself, that these facts are here set down. They are given because they happen to exhibit

[1] *Fourth Report of the Record Commissioners of Boston* (1880), document 9, pp. 7, 8.

clearly a social phenomenon that too often has been overlooked or forgotten in the construction of social science, but which may prove to be the point of departure for important discriminations.

The minutes cited from the Dorchester record quite plainly show that the inhabitants of that town were looking after the make-up of their community and the conduct of its members for at least two distinct purposes. The resolution that a man chosen to office must undertake its duties or pay a penalty shows that the Dorchester folk assumed that they were collectively *doing something,* not idly enjoying the pleasure of neighborly association while pursuing merely individual ends. Translated into the compact language of these latter days, the resolution tells us that the townsmen of Dorchester understood that they were attempting "team work," and that every man in the enterprise must accept that particular part of the task which "the team" assigned to him. The second resolution manifests an alert consciousness of the importance of group cohesion, a thing even more essential than individual efficiency as a factor in common enterprise. The members of the community must be agreeable one to another. The man "disliked of" should be kept out.

Let us apply a bit of analysis to these elementary facts. The common activity of a community of the simpler sort—a neighborhood group of farmer folk, for example—may be extremely slight. Its team work may for a long time be potential only, a mere readiness to undertake the common defence, if necessary, or to cooperate in some emergency, as of flood or fire. In a large and complex community the team work is actual, often energetic, carefully organized and extremely varied. It provides for the common safety. It engages in the production of wealth. It establishes and maintains those rules of the game which collectively are called law, and it carries on government to ascertain and to apply the common will.

But whether actual and organized or only potential and unformed, the collective activity of any group of human units obviously presents to scientific view two unmistakably different aspects. A community collectively does things *for* itself—that is, for its members—and it collectively does things *to* or *upon* itself,

scrutinizing and determining its membership, scrutinizing and censoring conduct. It does things collectively for itself, because experience has shown that many things can be accomplished by collective action or team work that cannot be accomplished adequately or at all by individual effort. It does things to itself, because experience has shown that not every aggregate of individuals can carry on team work effectively or even live together amicably.

This differentiation of social function into collective action for and collective action upon society would seem to be fundamental. If it is, we apparently have here the point of departure for a working distinction between certain special social sciences and a more general science of society. It is clear, for example, that the economist, in studying the social production and distribution of wealth, is primarily investigating the action of the community in doing an important work for its productive units. He concerns himself only incidentally with the reactions of economic activity upon the social composition and structure. In like manner the jurist, in studying the nature and the evolution of legal relations and activities, and the student of political science, in examining the nature and the evolution of government, are primarily looking at social functioning as it bears directly upon the well-being of component elements of society, although incidentally or secondarily they may be interested in consequent modifications of the integral social order. On the other hand, a student who has followed the genesis of the community itself and has observed that sooner or later it becomes aware of itself as a community and begins consciously to react upon itself, may then direct his further inquiries upon the nature, scope and consequences of the reaction. If he does this, he is engaged upon investigations which, in recent years, have been grouped under the name of general sociology.

In offering this distinction between general sociology and the special social sciences, I suppose that I am not making an essentially new generalization; certainly I am not doing violence to usage. For the distinction itself, I think, has unconsciously grown up in usage, and I am here merely recognizing it, pointing out the two distinct aspects of social functioning upon which it

rests and putting it in explicit terms for more convenient application.

Assuming, then, that general sociology, whatever else it may comprise, is particularly concerned with the phenomenon of social self-control,[1] including under this term the social determination of the composition of the community, the control of conduct, the promotion of efficiency, the shaping of social organization and the determination of general policies, we may further look at the whole subject in certain other lights, hoping so to get a more rounded notion of what social self-control is, how it arises, what it does and by what methods it may be subjected to effective scientific study.

All nations compel their subjects to live under restraints and to perform prescribed acts. As far as their observed conduct goes, subjects must be loyal, whether or not they are patriotic at heart. In a lesser degree the modern nations constrain their subjects in accordance with some prevailing idea of the common good. A protective tariff, for example, does not altogether prevent, but it restricts, the purchase of desired commodities produced abroad.

Within the broad limits fixed by national policy, states and municipalities regulate the individual lives of their citizens in endless detail. From birth to death the pressure of organized society is hourly felt by its conscious units. Parental authority is restrained within bounds which the state prescribes. At the command of the state the child is taught and drilled. Growing to manhood, he orders his walk and conversation as the state instructs, or he languishes in jail.

If the citizen, thus reared and moulded by an external power manifesting itself through government and law, happens to be a religious as well as a political animal, he finds himself subjected to further rules and orders. The church to which he belongs exacts an obedience sanctioned by penalties which may be as fearsome to his mind as are the fines and imprisonments im-

[1] In employing this term I am not trying to improve upon the phrase made familiar through Professor Ross's admirable book on *Social Control* but am only examining some aspects of social control more particularly.

posed by a secular power. If he earns his bread in the sweat of his brow, he discovers that he is only partly free to work as he pleases, or when or as long as he pleases, or to make such contracts as his own best judgment approves. The "walking delegate" finds him out and instructs him in the ethics of industrial solidarity. If in idleness he consumes the substance that other men have provided and, in the quiet of his club, seeks refuge from the over-regulated life of a Philistine world, even there he encounters the rules committee taking cognizance of his language and his drinks, and standing ready to exclude him if he oversteps the line of that conduct which is reputable among gentlemen.

In barbarian and in savage communities the collective regulation of life is not less but greater than it is in the civilized state. The bounds that may not be overstepped are narrow and dread. Immemorial custom is inflexible, and half of all the possible joys of existence are forbidden and taboo.

Even in animal bands and herds, individual behavior is constrained. Inadequate or obnoxious members of the company are abandoned, expelled or killed by their fellows. We do not presume that in animal groups there is any cooperative understanding in these matters. We cannot suppose that there is. But through like response to the same stimulus or to similar stimuli, through suggestion and impression, a real although non-reasoned cooperation is effected. While, therefore, we may not say that animal society abides by rules, we observe that it lives by habits from which a member departs only at the risk of life.

There would be no excuse for bringing forward observations so commonplace as these if the general truth which they thrust upon us had not been very nearly left out of consideration in our attempts to establish the broad conceptions of a science of society. Whatever else society is, it is a group of units and relations which collectively acts under self-direction. It not only manifests a continuing process, as brain and nervous system manifest the processes of mind, as organic matter manifests the processes of life, but also, like living matter and like mind, it controls its own processes. Society constrains. Unconsciously at first, but consciously in its later and higher development, it brings

pressure to bear upon its component units. It incites and restrains them. It trains and moulds them. It conforms them to a norm or type and sets limits to their variation from it.

Here, then, we have a generalization of significance. *Society is a type or norm or mode, which in a measure controls the variations from itself.*

In thus functioning, society, by trial and error and by rational effort, carries further and brings to greater precision that process which in its unconscious mode we call natural selection. In the organic struggle for existence those individuals and those groups survive which are adapted to the conditions under which they dwell. This is only another way of saying that organisms which in some fortunate way combine certain structures, qualities and traits, and which, therefore, conform closely to a type that happens to be suited to a given place, can live there; while individuals or groups that vary too widely from this type sooner or later fail there to perpetuate their race. Or, to put it in yet another way, in every inhabitable region there is an environmental constraint, compelling conformity of organic structure and of life to certain adapted or adaptable types, from which variation is possible only within somewhat definite limits.

It is because of this conformity to type that society arises. Typical units or individuals of a given species or variety are alike as far as they are typical. Animate individuals that closely resemble one another respond in like ways to the same given stimulus or to similar stimuli. So organized and responding, they want the same things and by similar behavior try to obtain them. If the supply is inadequate for all and some part of it can be obtained by individual effort, like acts develop into competition. If the supply is adequate for all but cannot easily be obtained by individual effort, the like efforts of many individuals directed toward the same end develop, unconsciously and accidentally at first, but afterwards, in mankind, rationally, into cooperation. In either case, those adaptations which the animate organism, in common with all others, makes directly to its environment in general, are supplemented by a set of highly complicated adjustments made to the similar adaptations of other units like itself.

These adjustments of animate individuals to the like adaptations of other individuals of their own kind are the bases of social relations. Repeated and developed into habits, they create and establish those relationships which we call social organization.

The similarity which is antecedent to all these adjustments and relations becomes to some extent an object of consciousness in all associating creatures of the higher varieties. Appearing first as sympathy, it develops into a perception of likeness and at length, in mankind, into a more or less rationalized understanding of resemblances and differences, of agreements and dissensions. Step by step with this evolution of a consciousness of kind, the importance of "kind" itself is apprehended. Fundamental identities or similarities of nature and purpose, of instinct and habit, of mental and moral qualities, of capacities and abilities, are recognized as factors in the struggle for existence. To the extent that safety and prosperity depend upon group cohesion and cooperation, they are seen to depend upon such conformity to type as may suffice to insure the cohesion and to fulfil the cooperation.

Conforming to the requirement of group life—which itself is a product of the struggle for existence—animals instinctively and by habit, human beings instinctively, by habit, and rationally, manifest a dominant antipathy to those variations from type which attract attention. There are striking exceptions to this rule, as there are to nearly all rules of behavior by organic units. But the rule is beyond question. From the insects to the highest mammals, individuals deformed or queer are commonly objects of attack and may be put to death by their fellows. Death or abandonment usually overtakes the conspicuous variates among savages and barbarians, while in civilized communities they are objects of suspicion and avoidance, or of guardianship or restraint, according to the state of enlightenment and the degree of humane feeling.

How far individual conduct in swarms of insects and in bands of gregarious animals is forced into conformity to type by an instinctive adjustment, distinct from a circumstantial constraint, it is not possible on the basis of present knowledge to say. That the uniformity of human conduct in savage and barbarian communities is immediately a product of social constraint—largely

spontaneous, imitative and unconscious, but also partly conscious and deliberate—and only remotely and indirectly a product of environmental or circumstantial constraint, is a fact too familiar to call for demonstration. By the conscious cooperation of elders in directing the rearing of children by young parents, by organized initiation ceremonies, by clan and tribal councils, each new generation is remorselessly trained in those beliefs, habits and loyalties which the group regards as vital to its existence. Carefully analyzed, the entire mass of inculcations and restrictions whereby individual behavior is controlled in uncivilized society may be seen to be a means of enforcing conformity to type, of recognizing and maintaining a "kind," for the ulterior purpose of ensuring group cohesion and cooperative efficiency.

The restraints, the inculcations, the obedience-compelling devices of civilized society are so varied and so interlaced that they easily mislead, and it is only after long and comprehensive study of them that one begins to grasp their nature and function. Stripped of all adventitious features, they one and all are means to the same general end which is served by social constraint in barbarian and in savage communities. They determine, limit and control variation from type, now extending its range, now narrowing it and compelling a closer conformity.

A word must here be added regarding the consequences of social control. Society constrains. What are the effects of constraint?

The proximate results are new or wider uniformities of behavior and ultimately of character. Life is made so difficult for the variates that stray too far from type that they go down in the struggle. Society, in a word, creates artificial conditions of existence which affect selection, as natural conditions do, by determining a selective death-rate. When, for example, a Christian civilization compels a savage population to wear clothes, it kills off those individuals whose viscera cannot adapt themselves to the unaccustomed burden. When society increases its educational pressure, it eliminates some who cannot endure further nerve strain or whose reproductive powers fail under the increased requirement of individuation. Social constraint, then, creates arti-

ficial conditions, which act selectively upon the associated units. From a human point of view, such selective action may be good or evil. It may tend to produce and to perpetuate a stock of which intelligent minds think well, or one of which they think ill. From the point of view of the evolutionary process, the selected and surviving stock may be one which perpetuates its line with diminishing or with increasing cost to the individual. Assuming that race perpetuation with diminishing cost to the individual, or with actual increase of individual opportunity and happiness, is worth while and is, substantially, the thing which mankind calls progress, we may say that social constraint makes for progress or against it.

Summarizing the foregoing observations, we note that the unconscious evolutionary process in nature creates types. Because they conform more or less closely to type, animate organisms of the same variety or kind want the same things and in like ways try to obtain them. The various primary adaptations to environment, therefore, are inevitably supplemented by adjustments made by each individual to the similar adaptations of fellow-individuals. Group relations in which both competitive and cooperative activities are carried on—unconsciously and only accidentally at first, but presently, in the human species, deliberately—therefore necessarily appear. Society comes into existence. The conscious units of human society become increasingly aware of differences and resemblances among themselves. They apprehend the extent of their conformity to type or kind. The belief arises among them that in most instances marked departure from type is dangerous to the safety of the group or is a limitation of cooperative efficiency. Conformity to type is regarded as contributing both to the safety and to the efficiency of the group. Out of this notion grow conscious efforts to increase conformity, to scrutinize the "kinds" and to limit the range of variation. A social constraint is consciously evolved which exerts its pressure upon all component units of the group. Like environmental constraints, social constraint affects selection. In the long run it makes itself felt in the selective death-rate. The kind or type that survives under social pressure is believed by the conscious units

of society to be relatively efficient in the struggle for existence. It is supposed also to be relatively individualized. A group or community in which increasing individuation is secured without imperiling race maintenance thinks of itself as progressive.

The means of constraint that society uses, as we learn early in life by individual experience, are rewards and punishments. By praise and blame, by avoidance and rebuke, by indulgence and license, by penance and fine, by suspension and expulsion, by corporal punishment and maiming, by imprisonment and execution, men are forced to desist, to obey, to help; their conduct is educated into habits; their efforts are stimulated or goaded to acceptable degrees of intensity and persistence; their characters are moulded to approved types.

For all these processes of constraint and regulation in their entirety, society has its own descriptive names. Collectively they constitute the thing familiarly known as *discipline,* and their objective product, conformity of behavior, is *morale.*

Upon the creation and perfecting of discipline, and upon the standardizing of behavior and the selection of character by means of discipline, society has directed conscious efforts from the beginning. At first blunderingly, afterwards more or less skillfully, it has discovered, applied and tested disciplinary measures. The larger number and the best of them have been folkways. Stateways have been cruder, often cruel and often disastrous, but sometimes necessary and effective. But whether folkways or stateways the particular methods constituting discipline have been employed in the conviction that much conformity to kind or type or standard is essential to security and to cooperative efficiency. The object in view from the first has been to diminish the failures and to multiply the successes of associating human beings, in the struggle for existence.

If then we say in the language of every-day life, that society is an organization for the promotion of well-being and efficiency by means of standardization and discipline, we say the same thing as when in evolutionist terms we said that society is a type, controlling variation from itself for its own survival and further evolution. Discipline, from the evolutionist point of view, is a distinct

phenomenon, differing in kind, rather than in mere degree, from all others. Motion, the activity of all matter, inorganic or organic; metabolism, the activity of organic matter; response to stimulus, the activity of animate organic matter; discipline, the activity of type-conforming conscious groups—this is the series of natural phenomena. Physics and chemistry, biology, psychology and anthropology, sociology—these are the corresponding sciences.

Material for the descriptive and historical study of the evolution of discipline and of the relations of discipline to efficiency, to individuation and to survival, is abundant, but as a phenomenon of control, by a type, of variation from itself, it calls for quantitative study by the statistical method, since type as it appears among natural objects, including forms of plant and animal life, as it appears in mental processes and in conduct, and as it appears in the groupings and the collective activities of individuals socially organized, can always be expressed in the statistical terms of "frequency" and "mode." In other words, a type or norm can be resolved into numerical elements.

The question may naturally and properly be raised, however, whether numerical measures of social constraint would afford us any knowledge that we could not more directly obtain by other methods of inquiry. The corresponding question was raised when statistical methods were introduced in biology and in psychology. We may confidently anticipate that the conclusive answer which trial and demonstration have afforded in those sciences will be reached and accepted in sociology also.

A simple illustration may help to make the point clear. The temperature of the human body in health fluctuates within narrow limits about the normal of 98.5° Fahrenheit. Under the physiological disturbance of disease or of shock, the range of variation is greatly widened, and every one acquainted with modern medical practice, in hospitals and elsewhere, knows how closely the temperature curve is watched by nurses and physicians. In most cases the fact of illness or of shock is known independently of any scrutiny of the chart. But there are instances, sometimes critical ones, in which the temperature fluctuation affords the first

warning; and in all cases it affords the warning that possesses the qualities of exactness and degree, and upon precisely these qualities the issues of life and death may turn. In other cases the condition of the system is made known by a blood test that is statistical in form, consisting in a count of corpuscles exhibiting certain characteristics; in yet others by records of heart action and of arterial resistance.

It is reasonable to suppose that the social constraint which in any given community bears upon individuals and upon component or constituent groups is, under ordinary conditions, of a degree and an extent that may properly be described as normal, and that any considerable fluctuation from normal, could we measure it, would immediately make known to us the action of disturbing forces. The value of such knowledge can hardly be overestimated. The question, how much restraint, how much liberty, how much conformity to type, how much variation from it, are conducive to the general welfare, is the supremely important question in all issues of public policy. The right answer to it turns upon the determination of a previous question, namely, what is normal social constraint in a given community, at a given stage of its evolution, and what at a given moment is the actual range of fluctuation?

To obtain, then, determinations of normal social constraint for modern communities, including municipalities, commonwealths and nations, and to perfect the methods of measuring fluctuations must, I think, be regarded as an important object of sociological effort in the immediate future. That the effort will be successful is, I am convinced, a fairly safe prediction.

CHAPTER XIII

SOCIAL THEORY AND PUBLIC POLICY[1]

It is an interesting circumstance that the makers of social theory in all generations have aimed to be true counselors in the sense contemplated by Demosthenes, who said that to censure "is easy, and in the power of every man," but that the true counselor "should point out conduct which the present exigence demands." Like other men, they have reacted to the greater exigencies of their day. With fellow citizens they have played their part in the collective struggle for existence and advantage. By one sort of thinking or another, their theories have been derived, at least in part, from observations or reflections upon large issues of public policy, and upon public policy they have left an impression by no means insignificant.

If their counsel has been not always wise, not always salutary, imperfect knowledge, more than any defect of patriotism, has been at fault. Until social theory became sociology, it was highly *a priori* and speculative. A conclusion much desired for fortifying a policy predetermined, more often than not, was the actual base of intellectual operations. Knowing what he ought to prove for the glory and safety of the state, the pragmatic political philosopher discovered adequate premises for it as unerringly as any soothsayer to Cyrus or Alexander found the right flock of birds to deliver a prognosis of promise for expeditions then afoot.

It would be rash to assume that speculative methods have faded with the nobler intellects that used them "into the infinite azure of

[1] This chapter was written in 1910 and read as the president's address at the annual meeting of the American Sociological Society at St. Louis in December of that year. It was printed in the Proceedings of the Society in 1911. Except for one transposition of sentences for form's sake, the elision of a few redundant words, and the omission of nine lines of reference to peace propaganda from Fox and Penn to Carnegie, it is here reprinted without change. I take a frankly egotistical satisfaction in having said these things before 1914 instead of after 1920.

the past." In an age which is witnessing, in supposedly educated circles, a revival of every cult of magic and demonism known among men from Gadara to Salem, we cannot feel sure that any absurdity or obsession may not again mask under the austere name of "science." But for the time being, social theory of the speculative sort is discredited. The name "sociology" was invented and is used to lay stress upon inductive method. To find the facts first, to sort and array them with discrimination, to observe differences, resemblances, and dimensions closely, to generalize with caution, and only then to ask what suggestions, if any, the approximations to truth so obtained offer us for guidance in private and in public conduct, is the only reputable procedure among students of social, as of physical, phenomena.

Of the founders of sociology it may be said that in a pre-eminent degree their interest in practical affairs was deep and continuous and directed upon the weightier matters of the law. The "mint, anise, and cummin" of administrative reform they did not despise, but, one and all, they entertained the high ambition to mould public policy. Comte wrote *The Positive Philosophy* in part that he might fashion *The Positive Polity*. Spencer never lost sight of his initial purpose to formulate the principles of justice. Walter Bagehot, in whatever by-way of science or criticism he wandered, did not forget that his self-appointed task was to increase and heighten in the public life of his age that "animated moderation" which he held to be the unique excellence of English character.

We cannot doubt that these men, like their forerunners, were tempted to lay philosophical foundations in the old manner, for preconceived political systems. That they never dallied with the temptation need not be claimed. But to whatever extent they yielded to it, they impaired the value of their total achievement. Their fame rests upon so much of their accumulation and classification of facts as was unprejudiced and so much of their generalization as was inductive in quality. If any one of the three did not fully realize that his contribution to thought would be so measured, he at least did not fail to shape his intellectual life by scientific standards. In mature years each one frankly revised the dogmatic political creed of his youth by the objective light of

abundant knowledge. Comte began as the fervid disciple of the social revolutionist Saint Simon. He became the prophet of a progress as smoothly projected as a parabolic curve. Spencer's hatred of aggression proclaimed in *Letters on the Proper Sphere of Government* was formulated in his earliest book in the language of finality. But, mellowed by his historical study of social evolution, the author of *Social Statics* arrived at an understanding of the part that war has played in political integration, and a perception that equal liberty cannot be established among men while militarism survives. Bagehot, described by the friend of his college days as an intellectually arrogant and supercilious youth, became the scientific man of the world, the adviser of ministers of state and the one psychologist who has succeeded in explaining the mind of the average Englishman to the average English mind.

To recall these origins of inductive social theory is to realize that the work remembered was not only ground-clearing and ground-breaking; it was also superlatively constructive.

Comte not only insisted that completeness of description is a requisite of method, he also, making contribution, demonstrated the successive mutations of the human mind. Going forth from the barbaric feast of credulity, to be "long fed on boundless hope" of metaphysic, the race of man must, in the end, content itself with the "simpler fare" of verifiable knowledge. In that day reason may qualify the passions which dogma has denounced and damned, but never yet repressed.

Spencer's sociological theories were formulated as a part of his evolutionist conception of the world. That conception has become an integral part of the mental equipment of every educated man. Those writers who would convince us that Spencer is forgotten are of all philosophers most miserable. They must either avoid the post-Spencerian problems or think about them in terms of Spencerian ideas.

As Comte taught students of social science to expend their energies within confines of the knowable; as Spencer compelled them to see every process as evolution or dissolution; so Bagehot, examining more closely than any predecessor had done the strictly social phenomenon of a collective struggle for existence,

demonstrated that fundamentally sociological explanation is psychological interpretation. Bagehot, rather than Tarde, was the true founder of the so-called psychological school. *Physics and Politics* is one of those excessively rare books that the critic who has a sense of moral responsibility may daringly call original. As sociology, the chapters on the "Preliminary Age" and "Nation Making" forestall *Les Lois de l'Imitation.* As psychology, the chapter on "The Uses of Conflict" more than foreshadows some of the generalizations that we associate with the name of William James. And he would be a remarkable writer indeed who, desiring to set forth the social interplay of instinct, habit, and reason, could put it all so luminously as Bagehot has put it in the chapter on "Government by Discussion."

It is a fair presumption that work of such enduring influence upon theory has not yet spent its practical power in suggestion. It is reasonable to think that, were we now to re-examine it, we might find it still an unexhausted fund of wisdom, as of correlated knowledge. It may afford us guidance today, not less than it did yesterday, for a rational criticism of public policy. To that possibility, it may be well to give attention.

The problems of public policy do not become simpler with advancing civilization. To speak for the moment of our own nation, the questions that vex us are of bewildering variety and complexity: questions of territorial expansion and of rule over alien peoples; questions arising out of race conflict within our older continental domain; questions of the restriction of immigration, of the centralization or the distribution of administrative authority, of the concentration or the diffusion of economic power. Well may the skeptic ask if any science of human relations, however wide its generalizations, can offer even presumptive answers to questions so far-reaching and so diverse. Yet every citizen, whether he be instructed or ignorant, is expected to help answer them.

Before we admit that the objection is fatal, let us remember that an overshadowing question has still to be named, and that when one question overshadows all others the relative values of the others are determined. That question is the world-old

query—older than science, older than any record of history—the question, "Is it War or Peace?"

After ten thousand years of so-called progress, is reason still so ineffective against instinct that only minor issues can be removed from fields of battle to arenas of intellectual conflict? Must sovereignty—the ultimate social control—forever prove and declare itself in government by slaughter, or may international relations also be brought under government by discussion? By this "previous question" of world-politics every question of domestic politics is qualified. With war a possibility, the restriction of immigration is one problem; with war made impossible it would become an entirely different problem. A further democratizing of the social order, which might be safe if world-peace were assured, may be fraught with peril if the greater nations are again to challenge one another's right to live.

These considerations might be dismissed as academic if it were certain that war will indefinitely continue, or certain that it will not. Happily we do not know that it will. Unhappily we do not know that it will not. There are sincere and able men who doubt if the cessation of war should be desired. They exalt its disciplinary value, believing that the world yet needs a measure of sacrifice, of daring, of endurance and of superiority to materialistic aims which only war can give. A larger number of men, also sincere and able, reject every defense of war as invalid, but are incredulous when ways and means of disarmament are proposed.

It is upon these two interpellations, namely, the desirability of world-peace and its possibility, that the verdict of sociology may rightly be demanded and should carry weight. And as a sort of preliminary report, the conclusions of Spencer and of Bagehot assuredly deserve a profoundly respectful consideration.

As all students of Spencer know, his most important sociological generalizations pertain to the characteristic differences between what he calls the militant and the industrial types of society. His theory of social causation is stated mainly in terms of war-habit and peace-habit. And, like Mr. Carnegie, who was his loyal friend, Mr. Spencer looked upon war as the most mon-

strous of social ills, as the most formidable obstacle to the complete evolution of man. Mr. Bagehot, on his part, believed that in government by discussion we have an agency attained through immeasurable effort and suffering for the inhibition of hasty action, for the subordination of brutal passion to a reasonable expediency, for the final settlement of disputes by reason instead of by force. Surely, then, we should ask these scouts of inductive social science whether in their opinion the cessation of war at the present stage of social evolution is a thing to be desired, and, if it is, by what policies the consummation may be attained.

Sentiment, doubtless, and the abhorrence of suffering move most of those who are participating in peace efforts now. Mr. Spencer shared these feelings, but he did not rest his case against militarism upon sentiment alone. His faith was in the improvability of man, the final and superlative product of cosmic evolution. He saw that improvement involves adaptation to conditions on which life depends, and ever nicer adjustments of differing interests. He believed that improvement consists in an expanding sympathy of man for man, a continuing differentiation of powers, a better and always better coordination of life-activities and therewith an ever-deepening joy of living. It has proceeded through a social process. In this process war has played a great and recurring part. In breaking down the barriers that separated primitive men, in bringing savage camps together into tribes, in hammering tribes together into nations, war was inevitable and it was useful. Nevertheless, war achieves results through frightful cost and waste. It is incompatible with those more delicate processes of evolution which we associate, or should associate, with high civilization. This is a point of such fundamental importance, and the Spencerian demonstration of it is so complete and so irrefutable, that we may well linger for a moment to note wherein the demonstration consists.

Evolution is simple or compound.

Simple evolution is swift, direct and business-like. It occurs whenever a group of units of any kind, from white-hot iron to the professors of a faculty, discharge energy promptly and without indirection. Let the heated iron be cooled with least possible waste of time and in the most economical way. The molecules

will draw together. Integration, the initial process in evolution, will quickly be completed. There will be no secondary, no incidental changes. Close crystallization will uniformly characterize the mass. There will be no differentiation. The product will be a bar of iron contracted, instead of expanded; nothing more. Let professors attend strictly to the business of teaching, withholding no energy that can freely be discharged upon the environing student mind. Let there be no day-dreaming and no sauntering, no dallying with research by the way, nor idle discussion of the cosmic, or the social, order. As before, there will be integration. The units of the mass will get together. There will be no disturbing differences of opinion, no disquieting differentiations of aptitude or ability. The product will be a coherent, standardized, teaching force, dependable to turn out standardized Masters of Arts and intellectually pasteurized Doctors of Philosophy, at a minimum unit cost.

Compound evolution is slow, tortuous, uncertain, halting, and unbusiness-like to the last degree. Energy, instead of discharging itself in a straightforward way, goes maundering about in crooked currents and incalculable eddies. Some Quixotic mind imagines that it would be interesting to trifle with the cooling bar of iron. He interferes with the simplicity of its habits, with the honest promptitude of its crystallization, exposing it to charcoal fumes, hammering it on an anvil, thrusting it now and again into boiling oil, reheating it in his forge and hammering it some more. Very slowly its molecules draw together. They arrange themselves in strange, fibrous shapes, no two alike. Infinitely minute changes work their way upon and through that iron bar. It integrates, but it also differentiates. It becomes tense, pliant, elastic, vibrant. It sings, when you strike it, with a clear full note, and the Quixotic workman, touching it lightly with one last tap of his hammer, no longer calls it a bar of iron; it has become a Damascus blade. Quixotic faculties there have been, teaching effectively but not too much; not incoherent and not anarchistic, though united by little else than a common interest in intellectual pursuits and a kindly thoughtfulness of man for man. Their energy has freely been given to their chief task, instruction; but some of it, unguarded, has escaped into by-ways of science or

creative thought. Exposed to the play of many forces, not always equal or alike, members of such faculties have become different from one another. They have become individuals, each with his own view of life and its problems, each with his own distinctive work and record of achievement. Some of them have become absent-minded and detached, some absorbed in researches which neither colleague nor intrusive tourist could fully comprehend. This compound evolution of the loosely integrated faculty has, therefore, been scandalously irregular, and costly withal. It has made the business man thank God that he, at least, is not as these professors are. And yet, because of it, and by means of it, and chiefly through its very irregularity and freedom, have those discoveries been made which have multiplied the business man's thousands and millions into billions of ingots of good red gold. Through and by means of it students have been tempered and tested as well as taught, and sent forth into life to be leaders of men. Above all, this idling compound evolution, seemingly so loose and irresponsible, has sustained the pristine faith of man, which happily shall live when every other faith is dead, the faith, to wit, that the world is still "full of a number of things."

All this is but a way of saying that growth, and the art which simulates growth, are not manufacture. Nature knows nothing of standardization. Within some given range of variation she creates types, that is to say, resemblances, but no two individuals are precisely alike. But growth, with its possibilities of correlated difference, of diversity in unity, requires freedom and takes time. It can be hastened, but only with some sacrifice of results. Some strength of fiber, some delicacy of adaptation, is missed. Hastened evolution is crude evolution. Massiveness of parts and brutality of power may be attained, but not completeness of life.

Now of all ways of hastening social evolution, war is the most obvious, the most effective, the most absolutely business-like. A well-organized and well-drilled army is the best example of standardization that we know. Conquest and a rigorous military rule over conquered foes are the quickest way to integrate and standardize vast populations. The product is a militaristic empire. It is massive and imposing. It brings together the materials from which civilization may be evolved, but it is not itself

an example of compound evolution. The notion that war can perfect the internal adaptations of national life, the finer adjustments of sectional, racial, or class interests, has no historical justification. Two concrete illustrations will suffice.

Writing of Bismarck's inflexible purpose to consolidate the German empire, Emile Ollivier, minister to Napoleon III, says:

> The cause of the Franco-German conflict was one of those artificial fatalities born of false conceptions and the unwholesome ambitions of statesmen, which time might wear out, transform, and often extinguish. . . . But there existed a man to whom it imported much that this factitious fatality should subsist, and should finally burst forth into war. It was this puissant genius, unwilling to leave to time the glory of accomplishing the task of unification, the triumph of which would have been inevitable, who wished to make short work of evolution and impose upon the present what the future would have freely established, and to keep for himself the glory that his successors might have shared.[1]

And M. Ollivier might have added that the ceaseless activities of a generation of statesmen and writers had not sufficed to complete in the hearts of the German people that unification by divine right which was outwardly and politically established by Bismarck's crass attempt to hasten social evolution.[2]

Can it be said that the attempts of our southern brethren to solve by war, or of the federal government to solve by the essentially militaristic policies of reconstruction, the terrible problem of race interests were more successful? Can any sane man expect that the problem will ever be solved in any other way than through the infinitely slow process of a social evolution so complex as to baffle analysis?

This, then, is the evolutionist's case against war. It can hasten social integration, but in the measure that it succeeds, it prevents or postpones those finer and endlessly varied adaptations which require freedom and time, and upon which completeness of life depends. War has rudely assembled the factors of civilization, but the possible recurrence of war menaces civilization from this time forth.

Can war then be outlawed and generally prevented? These

[1] *Philosophie d'une Guerre*, pp. 342, 343.

[2] Nor did the war of 1914 complete it, as swift-following revolution proved.

terms are used advisedly, because no wrong has ever been completely abolished by penalizing it, or by adopting resolutions to discountenance it. We do not, however, on that account think it useless to penalize or to resolve.

I suppose that there is substantial agreement among economists and historians that the prevailing causes of war have been hunger and greed. Primitive men, made desperate by impending famine, have pushed into productive regions already occupied, there to contend for a share of nature's bounty. Modern men do as savage and barbarian did, but in ways so devious that the actual process is rarely seen or understood. Whole peoples or nations no longer move *en masse,* but, like the ancient Aryans at springtime, of whom Festus, describing the *ver sacrum,* tells us, they mitigate the bitter economic struggle by sending forth their youth and maidens into distant parts. Nations that live, grow. They must work more intensely, keying up the strings of life to higher pitch, or they must expand. Either way, the struggle for existence within nations becomes a struggle for advantage among nations. Emigrants from one may not be welcomed as immigrants by another. Colonization is an intrusion of the strong upon the weak. An acceleration of domestic industry is correlated with an expansion of foreign trade. With colonies and profit by trade, greed enters, adding its insatiable demands to those of primal human need.

These conditions create tension and provoke contention. They do not, however, inevitably produce war. The sociologist may go far with economist and historian in recognizing economic causes in history, but he may not lose sight of other factors, which it is peculiarly the province of his own science to analyze and appraise.

These factors are psychological, and without their cooperation war does not begin. The passions of men must be consolidated. Consuming hatred or fierce exaltation must merge individual wills in the collective fury of the psychologic crowd. Even then war does not follow if the fury merely bursts. An explosion may make hell writ small, and war is hell writ large, but there resemblance ends. An explosion in the open does no work, and war is systematic work. To make war, the public fury must so far be controlled that it can discharge itself only through the mechanism

of a military organization, in a series of regulated explosions, directed upon a definite object, until its infernal task is done.

Failure to remember this incontrovertible fact has had unfortunate consequences for historical theory and for political ethics. How does the control of public wrath arise? In what does it consist? Through what agents or agencies does it direct this fearful power, dissipating it in peace, or aggregating it for war?

Answers to these questions I find in Bagehot's chapters on "Nation Making," and it is at variance with those notions of the insignificance of great men in history which, for twenty years or more, have reigned unchallenged in the domain of historical criticism.

A nation is more than a population. Millions of individuals, differing one from another, compose it; yet, although not standardized, they are alike. In ways not easy to describe, Englishmen are Englishmen and Frenchmen are Frenchmen. Their resemblances are not merely physical. Englishmen are blue-eyed and dark-eyed, florid and brunette. Nor are they merely racial. The Frenchman may be Picard or Gascon, Breton or Provençal. The similarities that we note lie within a well-defined range of mental facts. They are not phenomena of instinct, nor yet of reason. If men were creatures of instinct only, that is, if all their activities were narrowly determined by heredity and began at birth, there would be no distinctions of nationality. Or, if we never saw Englishmen or Frenchmen, nor heard them talk, and if we knew them only by scientific writings, we could not easily tell them apart. The resemblances that constitute national type or national character are tricks of expression, ways of doing things, preferences and antipathies, criteria of taste, views of life and conduct. They were not imparted at birth; they have all been learned. They cannot be discarded at will; they are things of habit.

Now habits are acquired, we say, by doing things or thinking things many times over. That is true, but it is not all. Most of the repetitions that make up habit are imitations; they are copies of models or examples. Many of our elemental and most useful habits are imitations of parents; but plainly, if we imitated parents only, there would be no national traits, and, in the strict sense of the word, no nations. There would be only some millions of

families, each abiding by its own mental and moral law. National habits, and therefore national traits and character, are copies of those relatively conspicuous models that are widely imitated, irrespective of kinship; imitated locally at first, perhaps, but at length throughout a population.

If so much be granted, a further and significant truth is granted by implication. Conspicuous or dynamic men, who become models to thousands or millions of their fellows, are true social causes, and centers of social control. As they think, the multitude thinks; as they do, the multitude does, and for the most part unconsciously, every man believing that he thinks or acts spontaneously, and because it is his nature to think or to act so, and not otherwise.

Is not the conclusion obvious? Men in positions of authority, whether, as they believe, by divine right, or, as others think, by human choice, are necessarily conspicuous. Often they are men of power, and whether they would have it so or not, their decisions become to some extent the popular decision, and their voice becomes in part the people's voice. Without dictation or argument, and solely because their choice is spontaneously copied and their course of action is uncritically followed by multitudes that swear the choice was theirs, these men control, and controlling, direct, the public complaisance and the public wrath. In the final throwing of the dice of fate, they are causes of peace and war.

From this sober conclusion of inductive science I see no escape. That it is in harmony with an unsophisticated moral prejudice is not, I wish to believe, a reason for distrusting it. The conscience of civilized mankind has never yet admitted that deliberately declared war has been irresponsibly begun. Rather has it held, that great men in all ages, as moulders of opinion and ministers of state, have been moral agents, rightly to be branded with infamy when, for their own aggrandizement or glory, they have drawn the sword.

One rule of policy then, it would seem, may fairly be derived from sociological theory for the discouragement of war. It is right and expedient to teach that exceptional men, and especially all emperors and presidents and ministers of state, are not puppets of the *Zeitgeist,* but, in a scientific sense of the word, are true

social causes, and, as such, are morally responsible for the maintenance of peace.

Beyond policies to restrain the makers of war, are there policies which might render the making of war more difficult?

The conditions preventive or inhibitive of war have been three, namely: isolation, the inclusion of minor states within confederations or imperial systems, and the so-called balance of power.

In the past mere inaccessibility of territory has assured the relatively peaceful development of many peoples, among whom some have made priceless contributions to civilization. There are no inaccessible nations now. Political integration has continually widened the areas within which domestic peace prevails, and the work is so far done that no important lands or peoples remain to be appropriated. Further integration will be redistributive only. There remains the balance of power, as the one important objective condition upon which the maintenance of peace will largely depend.

I am using the term in a general or descriptive, not a technical or diplomatic, sense. I mean by it political forces in approximate equilibrium throughout the world. In this sense the balance of power is a sociological phenomenon of peculiar interest, for two reasons.

First, it is interesting because of its nature or composition. It is a distribution of forces roughly in accordance with what the mathematician calls "chance occurrence." If as many as a thousand shots are fired at a target, those that miss the bull's-eye are distributed about it with curious regularity. Of those that miss it by three inches, about as many will hit above as below, about as many to the left as to the right. Of those that miss it by six inches, about as many will hit right as left, about as many below as above. In like manner a balance of power is a symmetrical distribution of forces about a central point. An international balance of power exists when, with reference to any interest or question upon which states may differ, as many strong powers range themselves on one side as on the other, and the weak ones are symmetrically distributed with reference to the strong ones.

Does this bit of exposition seem too elementary or too academic to bring into a discussion of world-peace? Let me then ask if a

corollary from the principle stated may be taken for granted? The probability of a symmetrical distribution of shots or of forces about a central point increases with their number. Fifty shots about a bull's-eye would not be so regularly distributed as a thousand. A million shots would make a nearly circular pattern. If, then, an International Court of Arbitral Justice should be established at The Hague, or elsewhere, would the chances that the political forces represented there would remain in approximate balance be increased, if, meanwhile, a number of the now independent small states of Europe and the East should be absorbed in one or more of the great imperial systems? Or need we fear that the chances of equilibrium would be diminished if one or two of the more heterogeneous imperial systems should some day be resolved into independent states, each relatively homogeneous and individual?

The balance of power is of interest, secondly, because it is correlated with government by discussion. Bagehot's chapter on this subject deals chiefly with the nature of such government and its consequences. Like compound evolution, government by discussion is a slow, irregular, and unbusiness-like procedure: and therein lies its value. It inhibits ill-considered action. It gives passion time to cool, it makes for moderation and for poise. Bagehot does, however, ask how government by discussion arises. His answer is, on the whole, the least satisfactory part of his book, but it is essentially correct. Government by discussion arose, he says, in those nations that had a polity, that is to say, a constitution. Greeks and Germans had what Aristotle calls the mixed government. King, aristocracy, and freemen participated in it. Here, then, were distinct political forces in balance, and because they were in balance they had to talk before they could act.

Our modern account of reason and its relations to instinct enables us to generalize Mr. Bagehot's guess and to verify it. Government by discussion depends upon a balance of power and necessarily proceeds from it. It is a social expansion of the reasoning processes of the individual mind.

Reasoning begins when instinct fails or is inhibited. As long as we can confidently act, we do not argue, but when we face

conditions abounding in uncertainty or when we are confronted by alternative possibilities, we first hesitate, then feel our way, then guess, and at length venture to reason. Reasoning, accordingly, is that action of the mind to which we resort when the possibilities before us and about us are distributed substantially according to the law of chance occurrence, or, as the mathematician would say, in accordance with "the normal curve" of random frequency. The moment the curve is obviously skewed, we decide. If it is obviously skewed from the beginning, by bias, or interest, by prejudice, authority, or coercion, our reasoning is futile or imperfect. So, in the state, if any interest or coalition of interests is dominant and can act promptly, it rules by absolutist methods. Whether it is benevolent or cruel, it wastes neither time nor resources upon government by discussion. But if interests are innumerable, and so distributed as to offset one another, and if no great bias or overweighting anywhere appears, government by discussion inevitably arises. The interests can get together only if they talk. So, too, in international relations. If in coming years these shall be adjusted by reason instead of by force, by arbitration instead of by war, it will be because a true balance of power has been attained. If any one power or coalition of powers shall be able to dictate, it will also rule.

By what policies can an equilibrium of international power be established? I shall name only those that the foregoing considerations suggest, and not attempt to describe or to analyze them. They must of course be policies that will tend both to differentiate interests and to disintegrate coalitions of power that create an overwhelming preponderance of strength. The great superiorities that now preclude effective government by discussion throughout the world are, (1) technical proficiency based on scientific knowledge, and (2) concentrated economic power. If we sincerely wish for peace, we must be willing to see a vast equalizing of industrial efficiency between the East and the West. We must also welcome every change that tends to bring about a fairer apportionment of natural resources among nations and within them, and a more equal distribution of wealth. If these conditions can be met, there may one day be a Parliament of Man.

CHAPTER XIV

THE COSTS OF PROGRESS

Theophrastus Such was of the opinion that one teaches "a blinding superstition" who teaches "that a theory of human well-being can be constructed in disregard of the influences that have made us human." Being of one mind with George Eliot's modern ancient on this point, I have considered at length in these chapters, the influences that have made us human. Incidentally, I have been at pains to make clear what it is to be made human, discriminating between heredity and heritage, and explaining how, when mutation and selection have brought forth the reflective (or reasoning) intelligence, experience instructs and disciplines it, and equips it with culture. In particular, I have tried to prove that to be made human is to be "individualized" until, attaining "personality," we become persons. Now I wish, and think it desirable, to examine more closely certain conditions, named in Chapter VII, which "practical" experimenters in social control and in public policy ("uplifters" and professional reformers above all) often neglect and sometimes openly contemn.

Of course the subject is not new. No humanistic problem is. That is why I introduced it with my quotation from the modern ancient. If inductive science has new truth to contribute to the inherited stock of humanist wisdom, it is because we are in a position to study more minutely than was possible in earlier days, the forces and conditions that have made and formed us. We shall find them to be not altogether different in kind from those that were recognized by Plato, Aristotle, and Zeno. In fact, the Greek conceptions were truer than some later ones. Most of the social theories that have been constructed since the Protestant Reformation have dealt directly with the individual, and have attempted to work from the individual to society. In this they have been not altogether wrong. Centuries of suppression of individuality by Church and State had obscured one-half of po-

litical truth. Men needed to be reminded that the individual, when he has come into existence, has a value in and for himself, and must be counted as a force reacting on society. But as far as theories have assumed the individual as an independent starting-point of social and moral phenomena, they have been untrue.

The Greeks never failed to see that rational living is a product of social conditions. To the Greek, says Butcher, "'The man *versus* the state' was a phrase unknown; the man was complete in the state; apart from it he was not only incomplete, he had no rational existence. Only through the social organism could each part, by adaptation to the others, develop its inherent powers."[1] Nevertheless, this doctrine of the creation of man by society was by no means completely thought out in the minds of the writers who first formulated it, and those who last concerned themselves about it left much to be added by the students of a later time. Aristotle's comparative study of one hundred and fifty-eight different communities, which enabled him first among scientific investigators to show in detail how and why the good life can have existence only in the organized state, was a theoretical no less than a practical advance beyond the speculative insight of Plato. So, our modern study of social progress is an advance, both theoretical and practical, beyond the work of Plato and Aristotle, and beyond the philosophy of man as it stood when post-Kantian idealism had achieved its task of reviving Hellenic moods of thought.

This assertion perhaps demands a word of explanation. They misapprehend the work of science who think of it as incompatible with philosophy, and suppose that one must choose between them. It may be that inductive science can discover few great truths of which at least glimmerings were not seen in Greece. The doctrine of evolution is in that sense not new. But the mission of science is a patient conversion of insight into sight; of dialectic into knowledge. Our advantage is not in a conviction more sure than Aristotle held, that he who can live without society must be either a beast or a god; it is in a minute and relatively precise knowledge of those slow but certain processes of biological and social change by which the transformation

[1] *Some Aspects of the Greek Genius*, p. 51.

of brutality into humanity is effected. And we cannot afford to despise this better knowledge, as but a tedious elaboration of ideas long since familiar and accepted. It is itself a new factor in the social process. In the game of chess with the unseen antagonist of Mr. Huxley's picture, it enables man to play with the cool and calculating joy of one who knows the meaning and the end of every move; knows, too, that on the other side the play, though real and relentless, is fair.

Therefore, chief among the relations of cause and effect in the process that has made us human, is one that brings together, in a complete truth, the partial explanations that we owe to Athens, with other explanations, no less partial, that have been worked out in our own day. Mutations creative of intelligence and character on the one hand, natural selection and social pressure on the other,—these influences together have created human faculty. There came a time in the struggle for existence, as Wallace and Darwin both saw, when mental resource counted for more than physical strength. Anthropoid apes and simian men, we have reason to suppose, found safety and advantage in the pack that used wits. The intelligence that association from the first selected and disciplined has never ceased to depend on association for perpetuation. Deprived of comradeship by circumstance or law, men go back to the brutality from which they came. Wilfully rejecting companionship, they learn, with Manfred, that man is not yet qualified to act the part of God:

> . . . "There is an order
> Of mortals on the earth, who do become
> Old in their youth, and die ere middle age,
> Without the violence of warlike death."

Therefore it has been the humans best equipped with social habit and its products that have won and maintained supremacy in the contention with physical nature and living enemies. Society is a means to a definite end,—namely, the survival and improvement of men through a continuing selection of intelligence and sympathy. There can be no sociology worthy of the name which is not essentially an elaboration of this central principle. The notion that society is an end in itself is an unthinkable proposition. At the same time, the intelligence and the fraternity that asso-

ciation selects react in their turn on society, making it better as a working organization, and as a medium of individual life. So the interpretation of man as "human," and the interpretation of society as an ever-changing plexus of relationships, must proceed together.

It is not enough, however, to know with the philosophers of Greece that without society and social duty there can be no true individual life. They well understood the problems of social order and the nature of personal worthiness. They knew that excellence is a fact of organization: Plato's demonstration that justice in the state and goodness in the individual life are neither more nor less than the correlated play of mutually dependent and mutually limiting activities, in proportions harmonious with one another, and in subordination to the unity of the whole, has not been surpassed, in ethical analysis. They were familiar, too, with a thousand aspects of social and of individual change. But they did not combine these elements into a synthetic conception. They were unable to unite the static with the kinetic factors of their problem, and so to arrive at the peculiarly modern notion of a moving equilibrium. Therefore they failed to achieve an entirely true and sufficient philosophy of either man or the state. For life is not the whirl of a constant number of jugglers' plates, balanced on the sword-points of the players: it is a whirl in which new plates and new motions appear at every instant, compelling delicate readjustments throughout the system, and yet without seriously disturbing the approximately perfect balance of the whole. The large and difficult conception, then, to which we must attain is that of a world, in which there can be no true humanistic phenomena except through a process, at once progressive and orderly, of mutual modifications and adaptations of man and society by each other, in which each acquires, stage by stage, a more delicate complexity of organization. Of the many implications of this conception we shall now examine some of the more important.

In philosophy of every school the term personality stands for the highest product of evolution. True personality is a unified, self-conscious mental life, harmonious within itself, capable of ex-

pansion, and sympathetic with surrounding life because realizing and comprehending in itself the possibilities of life. It is the type at once of the concrete and the universal. One who understands this will not make the mistake of believing, on the one hand, that utility is the fundamental word of ethics, or, on the other hand, that ethics can be complete without including utilitarianism. The fundamental words in ethics (there are two of them) are integrity (unity, wholeness) and spontaneity. There can be no utility apart from a consciousness capable of wants and satisfactions, and apart from unity and aliveness there can be no such consciousness. Therefore if integrity and aliveness come into direct conflict with utility it is utility that must for the moment give way. Nevertheless, because there can be no continuing life without reactions of utility, ethics must expand into utilitarianism, and must work out the laws of a cumulative happiness which is the reward and the confirmation of well-doing.

If now we put this conception of personality side by side with our view of intelligence as selected and disciplined under social conditions, is it not evident that personality in this sense comes into being only in the relatively advanced society, which has passed beyond the limitations of tribal existence, and even of a narrow nationalism, into a sympathetic relation to mankind in all its varied phases of development? If so, it is a product of progressive as distinguished from both stationary and anarchistic, or disintegrating, society, and the theory of personality can be worked out only in terms of a theory of social evolution.

In detail this means that a society in which the highest type of mind can appear is one that has had, first, such a vigorous ethnic or national existence, and second, such varied contact with surrounding peoples, that it has become plastic without losing its distinctive character. In the nomenclature of evolution, it has acquired internal mobility without losing cohesion. By mutation a variable but not unstable physical nature has been produced. By numberless comparisons of one mode of civilization with another, a mental temper at once critical and catholic has been created. Prosperity and an increasing popula-

tion have brought the young and enterprising to the front in the conduct of affairs. Selection has weeded out those who could neither learn nor forget. Force and authority in the social organization have so far given way to spontaneous initiative that the individual can find scope for the development of his latent powers, but not so far as to permit disintegration. Contact and mental intercourse being the conditions of progress, its phases are an increase of material well-being, an inclusive sympathy, a catholic rationality, and a flexible social constitution, adapting itself readily to changing conditions, yet of enduring strength. And since the conservation of energy is a fact of social as of physical phenomena, the cause of progress, beneath all conditions and phases, is a conversion of lower—that is, more simple, imperfectly organized—modes of energy into higher. Economic activities transform the energies of physical nature into social energies, of which there is no other source, since artistic, religious, educational, and political activities are but a further transformation of the results of economic effort. In the medium of all these activities is moulded their final product, the human person, who could come into being in no other way and under no other circumstances.

Such are a few of the sociological facts that underlie humanistic problems. It is interesting to reflect that in a vague way the big truth which they contain, that without social progress there can be no development of man has always been present in popular consciousness. The experiences of individual life, of course, afford a basis for it, since the years from childhood to maturity are normally a period of increasing personal power, in which every ambitious man believes that he was born to accomplish a desirable transformation of the community. But social experiences in the mass have built the superstructure. Faith in ongoing and in a better state of things has been an element in every religious belief.

What has been the genesis of the conviction? Everywhere social advance has been brought about through successive waves of conquest. Naturally enough, in the minds of the conquerors the good or the right order has been identified with the new order of things which they have undertaken to establish. The

evil order has been the old way of life that was followed by the subjugated enemies who are now reduced to serfdom. Good spirits are those who favor the plans of the enterprising and successful, in whose control are the shaping of public policy and the dictation of orthodox belief. It is true that orthodoxy is no sooner born than it turns conservative and seeks to maintain itself against further change. But the effort is vain. Another conquest, or a new generation, brings forward new men and new issues, and a new orthodoxy always stands ready to crowd the old to the wall. The conquered and oppressed also, on their part, have a doctrine of progress. It is belief in a future in which justice shall be done; when they shall be delivered from their captivity and in their turn put their enemies under foot. In time a closer intercourse and a finer feeling soften and blend these conflicting faiths into a belief in the ultimate happiness and perfection of all classes.

Crude and even visionary as it may be, perennial faith in progress is humanistic motive power. Science must rectify it at a thousand points, but the first word of a scientific humanism must be an unequivocal declaration that such faith *in se* is the beginning of achievement. The first law of life is a law of motion. In society, as on the street, the preliminary duty is to "move on." The nation that has no further reconstructions to effect, no new ideals to realize in practice, has completed its work and will disappear before the warfare or the migrations of more earnest men. But the moving on must be developmental; mere change is not evolution, but confusion; and the nature and limitations of an evolutionary process, imperfectly recognized as yet in scientific discussion, are practically unknown to popular thought. It is here, then, that the rectifying work of science must begin.

Human society is not a something-for-nothing endowment order. The vision of a completed society, lacking neither material comfort nor any excellence, in which foolishness, want, and suffering could linger only as dim memories of an imperfect past, has had a strangely persistent fascination for speculative minds in every age. Common sense has never accepted the dream for reality; for common sense is a skeptic from the beginning. Philosophy has doubted if evil be not inherent in the nature of

the world, and therefore ineradicable. But doubt and skepticism have fallen short of reasoned demonstration from experience that the vision is inherently absurd. Yet the elements of demonstration are simple enough. The available energy of society at any given moment is limited in amount. The total can be increased only by parting with some, in the thought and labor by which larger stores of physical energy, contained in the natural resources of the environment, are set free and converted to human use. All progress, therefore, is conditioned by cost, and if the law of conservation holds good in these matters, as we have assumed that it does, the cost will increase with the progress; not, however, necessarily in the same ratio as the gain, since riper knowledge should enable us to get more from physical nature with a given expenditure of human effort. In this simple form the limitations of progress present an economic problem, and need not detain us at the present time. However, inasmuch as society is organic and behavioristic the cost of progress takes on complications, out of which grow practical problems that are both grave and difficult. As appeared in the illustration of the moving equilibrium, society, as an aggregate that is simultaneously losing and absorbing motion, experiences an incessant rearrangement of its parts. This means two very important things: First, there can be no social gain that does not entail somewhere, on the whole community or on a class, the break-up of long-established relations, interests, and occupations, and the necessity of a more or less difficult readjustment. Second, the increase of social activity, which is the only phase of progress that most people ever see at all, may so exceed the rate of constructive readjustment that the end is disorganization and ruin.

For the further examination of these propositions let us translate them from physical terms into the language of feeling. The destruction of familiar relations and the necessity of establishing new ones are known immediately in consciousness in terms of hardship or suffering; and disorganization of social or individual life involves the pain of retrogression. The limitations of progress, then, are these: First, there can be no social progress, and therefore no development of personality, except at the price of an absolute, but not necessarily a relative, in-

crease of suffering. Second, if the increase of social activity, which is one phase of progress, becomes disproportionate to the constructive reorganization of social relationships, which is the complementary phase, the increase of suffering will become degeneration.

These limitations are not a cheering aspect of progress, but their reality is established in historical and in statistical fact, and they sharply define our obligations. The first of these sobering propositions has to be made a shade darker still. The suffering that progress costs is borne for the most part vicariously. The classes that are displaced, whose interests and occupations are broken up by the relentless course of change, are not the ones who secure the joys of richer and ampler life. That which enormously benefits mankind is too often the irretrievable ruin of the few. For illustration, one need not be confined to the familiar facts of the wasting of barbarian peoples before the advance of civilization, or the sacrifice of life in national self-defence. The history of industrial advance affords examples quite as striking, and more significant, since they show that after society has settled down to the quiet occupations of peace the fundamental conditions of its development remain unchanged. In reviewing them the sociologist expects to find that the minority which suffers the pains of progress is composed mainly of the most unprogressive elements of the population, and he is not disappointed. But he finds evidences also that to some extent the sufferers are recruited by victims of pure misfortune, whose undoing has been caused neither by their nature nor by their conduct.

When in the thirteenth and fourteenth centuries the growth of towns, money payments, and the commutation of week work loosened the bonds of custom and law that had held the serf to the manor, the entire commonwealth of England experienced an economic prosperity never before known. Population and wealth increased, and the free tenants, as a class, rose steadily in social position. They could cultivate more or less land, or engage in trade and obtain municipal charters. But the economic equality of an earlier day had disappeared. The growth of population brought men into the world for whom there were places enough, and more than enough, but not places already allotted to them in

the social order. They were places that had to be discovered by intelligence and enterprise, qualities that are not possessed by all men equally. The full virgate of land was no longer secured by customary law to each family. Since the energetic and strong could control more, the easy-going and weak had to get on with less. In the towns the far-seeing and forehanded quickly monopolized trade and the more profitable crafts. And so, while this comparative freedom of enterprise stimulated activity in a hundred ways that made England as a nation richer and stronger, it destroyed the old economic footing of the less competent members of society, and left them to struggle on, thenceforth, as a wage-earning class.

Two hundred years later, in the sixteenth century, society was again transformed by the results of geographical discovery. Free capital and foreign commerce quickened industry and thought into intense and brilliant life. "It was indeed a stirring time," writes Hyndman, obliged to admit that this period, which he calls the iron age of the peasantry and wage classes, was, nevertheless, one of progress in other respects. "A new world was being discovered in art and in science in Europe as well as in actual existence on the other side of the Atlantic. . . . Never before had so great an impulse been given to human enterprise and human imagination." [1] But the splendor had its price, which socialists like Hyndman have superficially described and but imperfectly understood.

Political integration had been going on. The struggle of contending factions had been costly, and the reestablished national life, with its manifold activities, was more costly. Barons discharged the bands of retainers that were no longer needed in civil strife. To better their fortunes the great lords enclosed common lands that had been used freely by the yeomanry, and began evicting tenants to convert agricultural lands into the sheep pastures that required little labor and returned a quick money income from sales of wool in Flanders. The misery of the people so displaced and forced into wage labor or vagabondage cannot be attributed to any actual lack of land or of industrial opportunity. There remained land enough and to spare, notwithstanding enclosures and evictions, if it had been well used; while the development of

[1] *Historical Basis of Socialism in England*, p. 23.

manufactures and commerce had only begun. If they had possessed the knowledge and the will to cultivate arable land more intensively, they could not have been driven from the soil; if there had been a free mobility of labor, they could have found employment quickly in the best instead of tardily in the worst markets, as too often happened; if the organizing ability of employers had been greater, the best markets would more quickly have found them. But the value of land had become too great for their wasteful methods; they had to change or go. That knowledge might increase, that freedom to come and go might be established, that the organization of enterprise might be perfected it was necessary that these economic and social changes which accomplished so much ruin should occur. Consequently, if the world was to become a larger and a better place for the alert, on-moving many, the sacrifice of the sluggish had to be.

The industrial revolution at the close of the eighteenth century again occasioned displacements of labor that bore more distinctly the character of misfortune to those who were injured by them. No degree of skill, enterprise, or assiduity could have enabled the handicraftsmen to hold their own in competition with power-machinery and the steam-engine. They could do nothing but leave their shops to wind and weather, and begin life over, on new terms, in factory towns. How many thousands of them never fully reestablished themselves, how many succumbed to illness or even to actual starvation before economic reorganization was completed, the reports of parliamentary inquiries bear witness. Yet an unprecedented increase of population was proof that, on the whole, the masses of the people had never been so prosperous. Before 1751 the largest decennial increase had been three per cent.; before 1781 it did not exceed six per cent. Then, all at once, it rose, decade by decade, to nine, eleven, fourteen, and finally, between 1811 and 1821, to eighteen per cent. In our own time the displacement of manual labor by machinery continues, and possibly less than in any previous period is the suffering visited on the least valuable portion of the population, since not infrequently it is men of a higher standard of life who are forced out by the competition of a lower type. Nevertheless, so large

has been the net gain from improved methods of production that the consequences of displacement are less serious than they were a century ago. The chance of finding reemployment quickly is, for competent men, greater than in former times, and the period of search is made endurable by accumulated savings and varied forms of aid. All in all, industrial history discloses a progressive diminution of the proportion of inevitable suffering mixed with the gains of progress; but the absolute increase remains. The personnel of the displaced class changes more rapidly than in earlier times, but the class, as a class, is renewed. As a class, it cannot disappear as long as progress continues.

Such, in its simplest statement, is the law of the cost of progress. "He that increaseth knowledge increaseth sorrow." Whatever augments well-being destroys some livelihood. As an abstract proposition, no well-informed student of social phenomena would call this truth in question. But, unfortunately, the law-makers, the social reformers, and the moralists have not bound it upon their fingers nor written it upon the tables of their hearts. They legislate, reform, and advise, forgetful that their wisest endeavors can be at the best only "something between a hindrance and a help"; and the world goes on, therefore, not only deceiving itself with dreams, but wasting its resources on impossible undertakings.

For this principle is one that would make the instant quietus of many vain questionings if it were an ever-present element in our thinking. The poor have always been with us. Must they be with us always? Or may we hope that economic prosperity and social justice will one day mete out comfort, if not abundance, to all?

Not unless we can attain "finality in a world of change." Not unless there is a definite limit to the humanistic progress of the race; for the conditions that would eliminate poverty from the earth would terminate the life that is more than meat, in society first, and afterwards in individuals. Unless all men could be made equally prudent, equally judicious, neither an increase of wealth nor changes in its distribution could prevent the occasional sweeping away of possessions by the social rearrangements that

progress demands. The relative dimensions of poverty will contract and its misery will be alleviated, but there is no reason to believe that it will ever wholly disappear.

Will multitudes of human beings remain always in practical subjection to individual or corporate masters? Can we not abolish economic slavery as we have abolished legal bondage? Aristotle's argument that slavery inheres in civilization has shocked the sensitive and amused the shallow, while both have quoted it to show what foolishness a philosopher can teach. But to the wise it will ever remain a profound though mournful truth. Essential slavery has aptly been described as the estate of a man who "can't get any freedom." We have changed the legal conditions under which millions of men and women perform ill-requited tasks of daily toil. To some extent we have diminished the total magnitude of their misery, if not in every individual case its extreme intensity. But we have not enabled them to get actual freedom. We have made it unlawful to buy and sell their persons. The master can no longer obtain control of the laborer's time and strength, and therefore of his freedom, from any legal principal but the laborer himself. The laborer cannot sell his own freedom in perpetuity. But he can sell any portion of it, or all of it subdivided into portions, for a limited period of time, or for his whole life subdivided into periods. Practically, therefore, any man or woman may sell his or her entire freedom for life, and practically thousands of both men and women are compelled by hunger to make the sale on terms that are personally degrading. Yet that interpretation of this melancholy fact which attributes it to the wickedness and greed of a capital-owning class is a tissue of economic and sociological fallacies. Another interpretation, which explains it as unavoidable misfortune, becomes a perversion of history when, in the desire to prove that the world has grown better, it assumes that ancient legal slavery was a consciously-devised oppression. Neither oppression nor greed has been at any time the first cause of legal bondage or of economic dependence. Both are secondary causes, induced by experiences with a slavery already existent.

Modern civilization does not require, it does not even need, the drudgery of needle-women or the crushing toil of men in a

score of life-destroying occupations. If these wretched beings should drop out of existence and no others stood ready to fill their places, the economic activities of the world would not greatly suffer. A thousand devices latent in inventive brains would quickly make good any momentary loss. The true view of the facts is that these people continue to exist after the kinds of work that they know how to perform have ceased to be of any considerable value to society. Society continues to employ them for a remuneration not exceeding the cost of getting the work done in some other and perhaps better way. This economic law has been too much neglected in scientific discussion. It should be repeated and illustrated at every opportunity. Incessantly we are told that unskilled labor creates the wealth of the world. It would be nearer the truth to say that large classes of unskilled labor do not create their own subsistence. The laborers that have no adaptiveness, that bring no new ideas to their work, that have no suspicion of the next best thing to turn to in an emergency, might better be identified with the dependent classes than with the wealth-creators.

The same economic law offers the true interpretation of ancient slavery. In strictness civilization did not rest on slavery. It was not in any true sense maintained by slavery. The conditions that created the civilization created economic dependence, and they are working in the same way, with similar results, now. Ancient civilization accepted the dependence and utilized it in the crude form of slavery. Modern civilization accepts and utilizes it in the slightly more refined form of the wage system.

Certain great social tasks of creative organization have always confronted our race. The enforced effort to achieve them has been history's great competitive examination. The slaves and serfs have been those who have failed. The first great necessity was social unity,—the power to act together in a disciplined way,—and the first slaves were those who could not create a sufficiently coherent social organization to sustain a growing civilization. They had to make way before others who were equal to that achievement, and they became slaves not solely nor chiefly because of a conqueror's tyranny, but primarily because slavery or serfdom was practically the only economic disposition that

could be made of them. Now that social unity has been in good measure established, and the world has entered on yet larger undertakings, the condition of freedom is the ability to devise new things, to create new opportunities, to make not only two blades of grass grow where one grew before, but to make a hundred kinds of grass grow where before grew none at all. Accordingly, the practically unfree task-workers of this time are those who, unaided, can accomplish none of these new things. They are those who might do well in old familiar ways, but who have nothing to turn to when their ways cease to be of value to the world. To live they must force depreciated services upon society on any terms that society can continue to allow. They are unfree task-workers not because society chooses to oppress them, but because society has not yet devised or stumbled upon any other disposition to make of them. Civilization, therefore, is not cruel. Rather it is supporting and trying to utilize the wrecks and failures of its own imperfect past.

But it may be said: All these negative conclusions are based on the assumption that the régime of individualism is to continue. Might not redemption from poverty and dependence be possible under the reign of a beneficent socialism?

Two systems of socialism have been proposed, if we classify them according to plans of organization, and two if we classify with reference to a proposed division of wealth. According to one plan industrial administration would be centralized; according to the other it would be decentralized. Either of these systems might be communistic, incomes being made equal throughout society, or either might be non-communistic, the services of different men being valued unequally.

Decentralized socialism would merely substitute competing communities for competing private organizations. It would follow that some communities would prosper more than others, and that some, therefore, would presently come under subjection to the others. A centralized socialism would probably attempt to establish a rigid and final system of occupations, in the hope of preventing industrial derangements. If successful, the attempt would make an end of progress. If no such attempt were made, men would be thrown, as now, from time to time, out of that ideal

arrangement in which each did the work to which he was best adapted, and therefore, if rewarded in proportion to their services, the unfortunates would receive, as now, only the pittance that would no more than support life. The one difference would be that society in its corporate capacity would assume the responsibility of finding new work for them; but, rewarding them according to performance only, it would practically have them in subjection. They would only have exchanged masters, and slavery to individuals for slavery to society.

If, vainly hoping to escape from this dilemma, society should not only assume the responsibility of finding new opportunities for the displaced, but should undertake to compensate them for the buffetings and losses that they had suffered by reason of industrial changes, and regardless of their resulting worth to the commonwealth, it would transform the character of its socialism. Rewarding no longer according to service, the socialism would become communism. Men of unequal power to work and to use, of widely varying capacities to enjoy, would share alike the common product of their labor. Only one result could follow. Men of animal natures, having as large incomes as men of a higher development, would spend a disproportionate share of it on the grosser sorts of gratification. Materialism of life, with its debasement, would be the unprofitable substitute for economic hardship. Income cannot be greatly disproportionate to the social value of work, talents, culture, and virtues, without degrading the man. If it be said that many men whose whole social value is of the slightest do have, in fact, fabulous incomes, which socialism would diminish, the reply is that there are not, accurately speaking, many such men, and that there would be no apparent advantage in substituting a systematic breeding of dull sensualists for the sporadic genesis of more brilliant debauchees.

Shall we then conclude that an unrestrained individualism, working out social changes that seem advantageous to their promoters, can achieve limitless progress, and that only harm could come from any checking of the rate or intensity of its activity? Shall we assume that the inevitable costs of progress in economic loss and human suffering must be uncomplainingly borne by those on whom they fall, because all private reforms are utopian, and

all public regulation of industry or assumption of its losses in accordance with any form of socialism or communism would be worse than folly? Must we acknowledge that society has no responsibility for the consequences of the processes and changes by which its own well-being is maintained? Shall we give ourselves over to the belief that *laissez faire* is the last word of social science and the first law of ethics?

Nothing in the conditions of progress set forth in the foregoing study hints at other than negative answers to these questions. On the contrary, if the law of evolution exemplified in human society has rightly been understood, we are prepared to find certain real limitations of the number and extent of the social, political, or industrial metamorphoses which, within a given period, can combine in genuine progress. We may expect to discover a growing necessity for integral social action. We may expect to hear the conscience of the race declaring that society is responsible for the costs of its existence.

In dynamic phenomena of every kind results are a function, as the mathematicians express it, of time. With a given amount of energy we can go in an hour or a day a given distance. Prolong the time, and we can increase the distance. In the inconceivably complicated dynamic phenomena of life, growth, organization, development, are functions of time. If we force the rate of transformation, we prevent the establishment of relations of integration, differentiation, or segregation, necessary to complete organization. And if organization is incomplete there is a limit to the life-possibilities of the organism. It can perform less and enjoy less while it lives, and its dissolution will begin earlier. Society on a great scale, as the individual life on a smaller scale, exemplifies these laws. If social evolution is to continue, and the life of man is to become larger, and richer with increasing happiness, social organization in the future will be not simpler than it is now, but more complex. In its larger being, individualism, socialism, and communism may not be the mutually exclusive things that they now seem to be. There may be not a narrower but a wider field for individual effort, not less but more personal liberty. At the same time, more enterprises may be brought under public control, and more of the good things of life

may be distributed, like the sunshine and the air, in free and equal portions. The displaced men and women may be more quickly reestablished than now, their services be made of greater value, and society may assume a larger portion of the burden of their misfortunes. All these possibilities are implications of the second of the limitations of progress to which attention has been called,—namely, that if the increase of social activity becomes disproportionate to the constructive reorganization of social relationships, the increase of suffering will become degeneration. A few of the facts in evidence may be noted.

Dazzled by the results of material progress already achieved, men throw themselves into the enterprises of modern life with the zest of an ambition that knows no bounds. The rate of industrial, professional, political, and intellectual activity becomes proportionate to the swiftness of electricity and steam. The struggle for success causes demographic changes which profoundly modify the social conditions of existence.

One of these is a phenomenal increase of population following upon an enormous production of wealth. We have already seen how improved industrial conditions in England, in the first part of this century, were followed by an unprecedented increase of population. The expansion of the population of the United States from 3,929,214 in 1790 to 62,622,250 in 1890, while the population of Europe, in spite of enormous emigration, rapidly multiplied, was a phenomenon that Longstaff accurately described as unique in history.[1]

A second change is a rapid concentration of increasing population in large cities, where the great prizes of worldly success are striven for and won. More than one-half of the population of the United States is now urban. Humanity is flowing into cities faster than the reorganization of the manifold phases of town life, including municipal government, is achieved. There is a continuing drain upon the vitality of the country to meet the destruction of vitality in the towns, which makes the depopulation of rural sections a grave matter for the future of civilization. "By a curious perversion," says Longstaff, "the advantage of towns is said to be 'life.' There is in truth more life in a given space, more high

[1] *Studies in Statistics*, pp. 54-55.

pressure, more rush; but it is the rush of a clock running down." [1]

A displacement, in many industries, of men of a relatively high standard of life by cheaper men of a lower standard, more rapidly than the better men can find places in industries requiring relatively intelligent labor, is a third demographic consequence of intense activity. The normal displacement, as has been shown, is of the dull, mechanical, non-adaptable man by a more versatile competitor. But industries are not all of the same character. Some are more progressive in their methods than others because they contribute to the satisfaction of growing wants, which create a varying demand, while others minister to wants that are relatively stationary. In some industries, therefore, the high-priced man is the cheap man; in others the low-priced man is the cheaper man. Economists who have contended that high wages mean a low cost of labor, and those who have affirmed the contrary, are alike half right and half wrong. They have been observing different classes of industries. Under a uniform, self-regulating circulation of labor, the versatile man, of the high standard of life, would displace the cheaper man in one class of industries, and the duller, cheaper man would displace higher-priced labor in the other class. Under normal progress the major displacement would be of inferior by superior men. But unless economic evolution, creating new wants and varying demands, and reorganizing industry to supply them, is going on more rapidly than the growth of social unrest, or of those political policies that so often force hordes of destitute people into migrations that have no definite destination, there may be a cruel and ruinous substitution of the lower for the higher grade of workman, prematurely and far beyond normal limits.

Under these circumstances the struggle for success piles up in the community much wreckage of degeneration. Every statistician has been struck with the seemingly anomalous fact that suicide, insanity, crime, vagabondage, increase with wealth, education, and refinement; that, as Morselli says,[2] they are phenomena of civilization. But the fact is not altogether anomalous after all. These things are a part of the cost of progress, forms that

[1] Longstaff, *Ibid.*, p. 35.
[2] *Suicide*, p. 16.

the cost of progress takes when the rate of social activity exceeds the rate of constructive reorganization. Quicken the pace of a moving army, and the number of the unfortunates who will fall exhausted by the way will be increased disproportionately. Besides quickening the pace let discipline lapse and organization break up, and the number of stragglers will be more than doubled. Increase the strain of any kind of competitive work and derange the conditions under which it is done, and the percentage of failures will rise.

Practical solution of the problems of responsibility and policy that are presented by the conditions and tendencies which we have looked at depends on a difficult combination of two very difficult things. The first is to convince one set of men and women that society ought to assume the costs of its progress, and, as far as possible, take openly the responsibility for replacing the displaced. This is the element of truth in socialism. We have made progress in this direction. Practicallly and theoretically society admitted the obligation when, in the reigns of the Tudors, it began to supplement private and ecclesiastical charity by systems of public relief. In a hundred forms of legislation and administration, in public education, in the multiplication of asylums and hospitals, in a thousand modes of private beneficence, the duty is being more adequately discharged by each later generation. But we are yet far from comprehending its full extent. We realize but faintly how far the incompetent and impoverished have been made so by social movements that have cut them off from possibility of personal improvement. A second difficulty is to convince another set of men and women of the fallacy of a cardinal socialistic notion,—namely, that industrial derangements can be prevented in a progressive world; to convince them, therefore, that at all times a portion of mankind must be relatively useless to the community, and, for that reason, relatively poor; and that their greatest possible utilization and compensation depend on their being held for the while in practical subjection to other individuals or to the commonwealth.

Sooner or later there will have to be a courageous facing of the fact that one portion of every community is inherently progressive, resourceful, creative, capable of self-mastery and self-direction,

while another portion, capable of none of these things, can be made useful, comfortable, and essentially free, only by being brought under bondage to society and kept under mastership and discipline until, if ever, they acquire power to help and govern themselves. If one should say that we all believe this doctrine,—that it is in no sense new,—the necessary reply would be that we nevertheless habitually disregard it in every matter save the juridical distinction between the law-abiding and the criminal. We accept *laissez faire* as the expedient rule for all men and all industries alike, or we denounce it as bad for all alike. We advocate socialistic methods for the entire field of industry, or we pronounce them impracticable for any part of it. We denounce compulsory education for any class in the community, or we insist on forcing it on all classes. In all which sayings and doings we confound unlike things, and show ourselves irrational in the last degree.

What, then, in concrete detail, are some of the obligations placed upon individuals and upon society by the conditions of social progress?

The law that progressive, self-governing members of society should lay on themselves includes at least three groups of duties. First, they should resist, personally and in their influence, the tendency to subordinate higher considerations to that mere quickening of competitive activity which goes beyond its normal function of means to end, to become an irrational, unjustifiable end in itself. Especially in the education of ambitious children should competition be tempered. Second, they should resort more freely, as fortunately they are beginning to do, to country life, and especially should they study and experiment with the ways and means of revitalizing it. Third, they should cultivate that true individuality in the consumption of wealth, which is not only a mark of genuine manliness or womanliness, but which acts on economic demand in ways that give a competitive advantage to the industrial qualities of men whose standard of life is high.

The duties that society should discharge in its relation to the general conditions of progressive activity, and to its members who are undeveloped or degenerate, fall also into three groups. First, society should assume the regulation of international migra-

tion. Each nation should bear the burden of pauperism, ignorance, and degeneracy caused by its own progress or wrongdoing. Society should also assume the regulation, by industrial and labor legislation, of industries in which free competition displaces the better man by the inferior. Perhaps in time some of these industries could advantageously come directly under public management, as socialism proposes. Second, society should act on the fact that a proportion of its population must be always practically unfree, by extending compulsory education to the children of parents who are unable or unwilling to provide in their own way a training that the commonwealth can approve. This education should be as well adapted as knowledge, money, and sincerity of purpose can make it, to the work of fitting the children of the poor for life in a changing world. Third, society should enslave, not figuratively, but literally, all men and women who voluntarily betake themselves to a life of vagabondage.

These are the obligations of individuals and of the state that seem to be disclosed by a study of social progress. But we must not forget that the same conditions impose a negative duty also, an obligation of restraint. For all reform, all philanthropic work, is itself a phase of social progress, and, like all others, has a cost in effort and suffering. Therefore, if philanthropic reform is hurried, or pursued by too radical methods, it may convert the absolute increase of evil, which progress costs, into a relative increase, and so wholly defeat itself. Lombroso and Laschi once contended that political crime (the crime, that is, of those who unsuccessfully resist governmental authority) consists essentially in an attempt to accomplish in crude and violent ways desirable changes or reforms for which society is not yet ready.[1] Devotion to the cause of progress these authors proposed to call by the name "philoneism"; the dread of change by the name "misoneism." Society is, on the whole, misoneistic; and we can mend its ways but slowly.

For, whatever happens, we must keep in touch with our fellowmen. It was Marcus Aurelius, one of the most modern-minded men of the first great western civilization, who said:

"The intelligence of the universe is social. Accordingly it has

[1] *Le Crime politique et les Revolutions.*

made the inferior things for the sake of the superior, and it has fitted the superior to one another. Thou seest how it has subordinated, coordinated, and assigned to everything its proper portion, and has brought together into concord with one another the things which are the best." [1]

That was nearly two thousand years ago. The aspect of the world has changed, but the essential nature and the fundamental structure of human society have not.

[1] *Marci Antonini Imperatoris De Rebus Suis. V, xxx.*

PART III

SYNTHETIC

CHAPTER XV

PLURALISTIC BEHAVIOR

1. The Dynamics of Pluralistic Struggle

1. Life as Pluralistic

Outside my window seven belligerent sparrows make a machine-gun din as they fight over a crust bequeathed to them by an unscientific philanthropist. While I watch them, a motorcycle policeman charging into the street arrests a speeding automobile flying blue flags and laden with violets and girls. In two minutes the boy "bunch" of the block has assembled to learn whether the car will be permitted to go on to New Haven, in time for "the game."

Of occurrences fundamentally like these life largely consists. Living bodies "carry on" to sustain and to perpetuate themselves. On occasion they fight. Their activity is more, however, than a struggle for bare existence. It is an endeavor to enlarge life and to enrich it. Conscious life is a struggle for satisfactions, including individuation, and for achievement.

Perpetuating itself, life multiplies itself, and the multiplication of individual lives complicates and intensifies the struggle for existence. The casualties are countless. The organisms that are most "fit," in the sense of being best adapted to their circumstances and best equipped to meet crises, survive. There is a natural selection.

The activity of a living body is reaction to stimulus, and reaction is behavior.

All reaction is a physiological behavior, and many reactions of tracts and organs are physiological only; but whatever the entire organism does as a unit is also behavior in a psychological meaning of the word.

The behavior of plants and of the lowlier animals is unconscious, or perhaps infinitesimally conscious: it is subinstinctive. Such, for example, is the turning of the leaves of heliotropic plants to the sunlight. Truly instinctive behavior begins with organisms that have acquired an automatically reacting nervous mechanism. It is accompanied by awareness, including sensations, with which, in the vertebrates (the higher ones, at least) are associated also emotions, simple ideas, and memories. These higher animals behave instinctively, and also by habit: in the individual span of life between birth and death they learn much by haphazard trial and elimination. The behavior of mankind is instinctive, habitistic, and rational. Self-consciousness has appeared, speech has been acquired, and hit-or-miss trial has been overlaid and brought under control by experimentation in thought, which ranges from guessing to systematic induction. Ideas, accordingly, have been correlated and coordinated.

The sum of behavior is the total struggle for existence and achievement. By far the greater part of it consists of effort to meet instant needs. A lesser but large part consists of efforts to obtain desired but not imperative satisfactions. The remainder is a free expenditure "for the fun of it," not at the moment productive, but tending always to become experiment, including exploration of the environment; and experiment leads to discovery, without which there could be no achievement.

In a world of limited inhabitable area the multiplication of individuals (whether cells or organisms), living by trial and error and tending to explore their environment, causes contacts and creates groupings of living units.

The earliest and simplest groupings are an incident of birth. Usually an organism in its lifetime reproduces itself more than once. Until they scatter, plural offspring are in form a group. They share good and bad fortune.

The cells that compose and constitute a plant or an animal are united in the intimacies of structure and process. Their collective life is physiological. Usually they cannot break away from the organic whole, or live apart from it.

The coelenterate polyps that secrete coral are attached directly,

or through branches, to a parent stem. They cannot get asunder, but one of them torn away by violence could be the parent of a new zoöphyte. They do not constitute an organism. Their collective life is conjunctive only.

The bees of a swarm, the beasts of a herd, the beavers of a dam, the men of a community, move about in individual detachment. Any one of them could live a hermit life for a while; but usually individuals of a kind act with reference to one another and keep near one another.

Keeping near one another, notwithstanding physical detachment, is behavior, and the collective life of physically detached individuals is behavioristic only.

Accordingly, the multiplication of lives not only intensifies the struggle of each individual for existence and complicates its conditions; it also in certain instances creates for all or nearly all individuals of the kind a physically collective life, and in other instances it complicates and organizes behavior and creates for all or nearly all individuals of the kind a behavioristically collective life.

The behavior that constitutes the collective life of swarm, herd, pack, or community is pluralistic. Any one or any combination of behavior-inciting stimuli may on occasion be reacted to by more than one individual; as the bread crust is by the seven sparrows, and as the "cop" and the car are by the gangster boys of the block.

The reactions of the individuals of a *plurel* to a stimulation common to them all in the sense that it reaches all may be similar or they may be dissimilar. To the same stimulus or to like stimuli like organisms normally react in like manner, as crows in the cornfield take wing at a gunshot and boys in the street run after the fire engine.

Alike or unlike, pluralistic reactions may be simultaneous or they may "string out" from prompt to dilatory. They may be substantially equal in strength, or unequal. They may be equally, or unequally persistent.

Like acts by detached individuals may be competitive, or they may fall into combinations, as when animals in a pack follow the

same quarry or beat off a common enemy. When it is often enough repeated, combined action becomes habitual group action.

Whether they are dissimilar or similar, rivalistic or combined, simultaneous or not, equal or unequal, pluralistic reactions to a common stimulation make a strictly individualistic struggle for existence impossible. Above all is this true of the human struggle for achievement. It is a pluralistic struggle.

Pluralistic behavior, in distinction from individual behavior, has its own conditions, forms, and laws.

In early youth I often drove cattle on the highway, and I learned that the secret of keeping them moving in good form lay in the "crack" of the stimulus that I relied on. In later youth, conducting and teaching a rural school, I learned that there also one secret of orderly cooperation lay in the cogency of the stimulation applied. Whether physical, utilitarian, or moral, it must be adequate. From these experiences, however, I learned also another thing not less interesting. It was that the part played by resemblances (or differences) among nervous systems is always significant and may be determinative. Two or three unruly steers in a herd could tax the powers of any driver. Two or three conceited morons in a school could tax the ingenuity and the patience of any teacher.

These instances are not oddities; they are representative relations. Always the character of pluralistic reactions (as similar or dissimilar, simultaneous or not, equal or unequal) is determined by two variables, namely, (1) the strength of the stimulation, and (2) the similarity (or the dissimilarity) of the reacting mechanisms.

Pluralistic behavior is the subject-matter of the psychology of society, otherwise called sociology, a science statistical in method, which attempts, first, to factorize pluralistic behavior, and second, to explain its genesis, integration, differentiation, and functioning by accounting for them in terms of the variables (1) stimulation, and (2) the resemblance (more or less) to one another of reacting mechanisms.[1]

[1] The psychology of society and social psychology are different things, as I pointed out in the article on "The Psychology of Society," in *Science*, January 6, 1899. One is identical with sociology, the other is not.

2. Regional Influence

Stimuli are infinitely various. In character they range from compulsions, impulsions, and constraints to inducements and allurements.

Among stimuli that all living bodies react to are phenomena of the surface of the earth, including its life-sustaining resources, and of the atmosphere, including variations of temperature and of precipitation. All these are unevenly distributed. Geography is a variegated thing. There are regions that forbid, repel, starve, and kill, and there are regions that nourish and attract. Therefore, the teeming life of the earth is apportioned and segregated, here in energetic aggregations, there in sporadic, ineffective examples according to the regional dispersion of environmental bounty and exaction, incitement, and constraint.

The distribution of inhabitable areas on the earth's surface is neither haphazard nor uniform. It is a grouping by coastal plains, river basins, and mountain systems, or in relation to them. The river deltas and the tide-water lowlands are relatively accessible. The bottom lands and lower levels of the watershed are abundantly productive of primary means of subsistence, the remoter plains and plateaus less so. Least bountiful in primary food products, least accessible, and, in general, least inhabitable are the high altitudes, in particular the continental divides, where river systems take their rise.

For brief periods of time the physical environment is normally static—approximately—but if its permutations throughout long periods are observed, it is seen to be highly kinetic. It "breaks out" in volcanic disturbances and in earthquakes. Variations of climate from cold to hot, from wet to dry, range from enormous revolutions consequent upon subsidences and elevations of the earth's crust, or upon the advance or retreat of the polar ice cap, down to minor fluctuations that are measured by familiar periodicities of maximum and minimum rainfall.

The relative advantageousness of physical environments for sustaining, energizing, and stimulating pluralistic life is a factor of all social phenomena. It determines the density and the composition of every population. It provokes and limits collective effort. It fixes the possibilities of organization and of collective

effectiveness. Directly, and indirectly through collective effort and effectiveness, it makes and limits the possibilities of well-being and of individuation.

3. Circumstantial Pressure

If the foregoing propositions are undeniable, the physiographic or "environmental" theory of history is true, as far as it goes. It is an inadequate and unsatisfactory philosophy, however, because it fails to perceive and to explain the media through which a physical environment acts upon conduct. We are creatures of circumstance.

For among the stimuli that incite and sustain behavior are various annoyances, hardships, dangers, and adversities that bear so heavily upon individuals living in isolation or unaided by neighboring fellow-beings that they constrain great numbers of animals of various species and great numbers of men to live in aggregations; and constrain great numbers of group-dwelling men to overlook many of their differences, to minimize many of their antagonisms, and to combine their efforts. These constraining circumstances may be conceived as constituting a circumstantial pressure upon living beings.

In its totality circumstantial pressure, like chance (as the mathematicians define chance), comprises innumerable small causes. Rain drives beasts and human beings into momentary assemblages. So does the glare of noonday sunlight. When winds are cold some creatures—hogs, notoriously, and sheep—huddle together for warmth. Drought, drying many springs and streams commonly resorted to, and compelling assemblage at those that remain, is often a pressure of extreme intensity. Darkness with its fearsome uncertainties occasions recurrent consorting of individuals (animal or human) that feel sure of one another. These pressures are not in themselves causes of cooperation, whereas accidents and attacks upon persons and possessions commonly are.

The curve, however, of circumstantial pressure is not a normal frequency distribution. It is skewed by relatively large causes of various magnitudes. Of these the most general, perhaps, is a diminishing return to effort in the struggle for existence. Dimin-

ishing return in the economist's meaning of the phrase is a special case. Economic adversity or threat is another. An important instance is an extensive dessication, like that which periodically recurs in Western Asia.[1] Little if any less general and more unremittent is the pressure exerted by the hardships and dangers of isolation. Continuous but highly variable is the pressure of foreign economic competition, the reaction to which is protective tariff legislation. Intermittent but most tremendous of circumstantial pressures, and in its consequences the most far-reaching, is war, and war is a product of countless factors of more than one category, as the failure of all attempts to account for the European war of 1914 by any one cause, for example, economic interest, has abundantly made clear.

The hardships and dangers of isolation are measured by urbanization, namely, the percentage of the population of a given area that dwells in towns and cities of a designated number, or more, inhabitants. Urbanization is the best basic measure of circumstantial pressure. The chiefly important phenomena of society are more highly correlated with it than with mere density of population. Supplementary measures are fluctuations of prices,[2] the foreign exchanges, and the statistics of war.

4. Demotic Factors of Like-Mindedness

Regional and urban aggregations of human beings increase in two ways: (1) by births in excess of deaths; (2) by immigration in excess of emigration. A population growing chiefly by births in excess of deaths is predominantly a genetic aggregation. A population growing chiefly by immigration in excess of emigration is predominantly a congregation. A normal population is both a genetic aggregation and a congregation.

Normally, a population is composite. It is composed of the young, the middle-aged, and the old; of males and females; of the native- and the foreign-born. It may comprise more than one color-race, and the foreign-born usually comprise more than one ethnic stock and more than one nationality.

[1] Ellsworth Huntington, *The Pulse of Asia.*

[2] The newspapers reported in 1919 that the Sultan and pashas of Turkey had cut down their harems to one wife each, because of the high cost of living!

Normally, as time goes on, there is intermarriage among nationalities of the same color-race, with resulting amalgamation. There is a tendency toward ethnic homogeneity within the limits of the numerically dominant color-race.

As reacting mechanisms, the nervous systems of individuals of the same color-race are in general more nearly alike than are the nervous systems of individuals of different color-races; and within the limits of the same color-race the nervous systems of individuals of the same ethnic stock (for example, the Germanic) are in general more nearly alike than are the nervous systems of individuals of different ethnic stocks (for example, the Germanic and the Celtic). The proof is, that it takes a stronger stimulation to obtain like reactions from individuals of different color-races or of different ethnic stocks of the same color-race than it does to obtain like reactions from individuals of the same stock or race. Try the experiment and repeat it until you are satisfied.

The young, however, react, in most cases, more readily to novel stimulation than the old do. An amazing example (as most observers regard it) is the world-wide interest of youth in revolutionary radicalism. The phenomenon is not new, however. It has been witnessed in every century. A significant and important consequence of it is that it is easier to obtain like reactions from the young of intermingled stocks or races than from the old. Revolutionary radicalism and internationalism go together.

The sum of like reactions, instinctive, habitistic, and rational, is like-mindedness.

The measure of basic like-mindedness is an index number, obtained by decreasing the weight of successive increments that diminish the homogeneity of their sum; for example: white, native-born of native parents; plus white, of parents foreign-born, divided by two; plus white, foreign-born, divided by four; plus all colored, divided by eight.

The chiefly important phenomena of society—for example, per capita taxation, per capita expenditure for schools, and a habitual exercise of the political franchise—are not highly correlated positively or negatively with basic like-mindedness. The meaning of this extremely significant statistical fact is that alert and progressive social life is associated not with strict and exclusive similarity,

or with extreme dissimilarity, but with that intermediate degree of mental and moral homogeneity which is an adequate meeting of minds for practical purposes and yet is tolerant of individual difference and dissent.

The best measure of radical like-mindedness is the percentage number of individuals of the numerically dominant color-race whose ages fall between the limits twenty and thirty-nine years. The best measure of conservative like-mindedness is the percentage number of individuals native-born of native parents whose ages fall in the class forty years and above. The radically like-minded are normally more numerous than the conservatively like-minded because they are indifferent (as the conservatives are not) to the distinction "native-born," or, going a step farther, "native-born of native parents." War tends to consolidate radicals with conservatives and to merge these measures.

When the stimuli to which living bodies react have become a circumstantial pressure, and the resemblances of reacting mechanisms have become like-mindedness, every social phenomenon thenceforth and every social situation is a function of two variables, namely, (1) circumstantial pressure, and (2) like-mindedness, each of which varies under the influence of the other, under influences that affect them differently, and under influences that affect them similarly.

II. The Reactions of Assembled Life

5. Complex Pluralistic Response

Simple pluralistic behavior is complicated and developed by interstimulation and response. Each individual of a group or assemblage is a complex of stimuli to his fellows, and each responds to fellow-stimulation.

The interstimulation of similar organisms differs from stimulation otherwise arising. It has a distinct character. Normally it is not repellent. It does not cause shrinking, recoil, or retreat. The reactions also of resembling individuals to one another are significantly different from the reactions of non-resembling individuals to one another.

Organisms of like kind stimulate each other non-repellently

not only because, first, they are similar complexes of stimuli, and because, secondly, they are similar complexes of reaction, but also, thirdly (and this is important), because the behavior of one organism *a* which functions as stimulation to another organism of like kind *á* (for example, the caw of a crow, the yelp of a dog, or the whinny of a horse) normally calls forth from that other *á* among various reactions a behavior (there is an answering caw, or yelp, or whinny) that is so like the initial behavior of *a* that it might have arisen in *a* by self-imitation. Such interstimulation cannot be repellent in a high degree, although in a degree it may be antagonistic. Two dogs may bristle and fight on first acquaintance, but they do not hasten to part company, as the horse shies from the rattlesnake or from the bumblebee. The fight ends in toleration or in the submission of one dog to the other.

Reactions of either similar or dissimilar individuals to one another may be unconscious or may be conscious. Unconscious pluralistic reactions of similars to one another are factors of various herd instincts and of numerous herd habits, all of which combine in gregariousness.

The synthesis turns upon and proceeds from the distinctive peculiarities of stimulation of kind by kind and of reaction of kind to kind, above set forth. The movements of organisms, like the motions of inorganic bodies, follow lines of relatively low resistance. Repellent stimulation and recoiling reaction open lines of relatively high resistance. Non-repellent stimulation and forthgoing action open lines of relatively low resistance. Also reactions to stimuli that resemble self-stimuli are relatively facile. These reactions include automatic imitations innumerable. On mechanistic principles, therefore, a reacting locomotor organism tends to go toward or to go with objects (including other locomotor organisms) from which non-repellent or otherwise non-resistent stimulation proceeds.

In distinctive stimulations of kind by kind, then, and in characteristically facile reactions to kind we discover relatively simple mechanistic factors of innate gregariousness or "herd instinct," the chief manifestations of which are a matter-of-course toleration of one another by individual units of a kin group, an automatic tendency to go with kind or at least to avoid separation

from kind, an automatic imitation of kind, and an unhesitating reaction to herd stimulation.

This account of gregariousness is opposed to a commonly accepted one which makes characteristic reaction to kind a manifestation of an unexplained herd instinct, so putting cause and effect the other way around.[1]

In the processes of interstimulation and its reactions pluralistic behavior is *dramatized.* Action which, in the first instance, is performed without reference to possible reaction by fellow-beings, but which in fact is followed by fellow-reaction, is likely in subsequent performance to be affected thereby. *In the presence of fellow-beings action becomes acting,* and thenceforward things are not merely done, they are enacted.

Under common danger, and often under common opportunity, similarities of behavior more or less dramatized develop into spontaneous collective action. The individuals participating in it may not be, or they may be, aware that they are combining their efforts; and they may not be, or they may be, aware that by combination they are producing results; but whether conscious or unconscious, cooperation commonly produces results advantageous to the individuals participating in it.

The probability of collective action increases with circumstantial pressure.

6. The Consciousness of Kind

In mankind interstimulation and its reactions have developed into communication by means of vocal signs. Everything is talked about. Pluralistic behavior having been dramatized is now also *conversationalized.*

Not only outward behavior and material things are talked about. "Ideas" and "feelings" as "states of consciousness" also are talked about. Thenceforth a *conversationalized consciousness* and its states may legitimately be included in a study of behavior, viewed as an objective phenomenon.

Stimulation and reaction are accompanied by sensation. Differences and similarities among stimuli, differences and similarities among reactions, are "felt" in consciousness, and presently are

[1] See William McDougall, *Social Psychology,* ch. xii, and W. Trotter, *Instincts of the Herd in Peace and War,* pp. 1-23.

perceived. Differences and similarities among objects, among the activities of things, and among behavioristic acts are felt and perceived. Differences of individuals one from another and similarities of individuals one to another also are felt and perceived. The idea of "kind" arises. Individuals become aware of themselves as a "kind," and as being of one, or of more than one "kind." This consciousness in human individuals of their differences one from another, of their similarities one to another, and of their "kind" is the "consciousness of kind." More precisely, the consciousness of kind is awareness of a concrete case or possibility of like-mindedness, and of such physical traits as are commonly associated with it.

The consciousness of kind allays fear and engenders comradeship. It converts instinctive consorting into a consciously discriminative association. Without it there is no society; there is only gregariousness. Of the instinctive herd it may be said as Rousseau said of the state created by force, "C'est une agrégation, s'il vous plaît, mais c'est non pas une association." The members of a society are aware of themselves as preferentially associating similars. For example, if they are Presbyterians, Republicans, and Americans, they consciously prefer to associate in religious communion with Presbyterians like-minded with themselves rather than with Methodists or with Episcopalians; to associate in politics with Republicans like-minded with themselves rather than with Democrats; and to associate in nationality with Americans like-minded with themselves rather than with the people of any European land. The consciousness of kind is becoming not less but more potent in large affairs. Perhaps the greatest manifestation of it ever seen is the nation-wide demand in the United States at present for the Americanization of alien residents. They must be made like-minded with Americans.

Odd as it may seem to the uninitiated, the statistical study of the consciousness of kind to the extent of obtaining excellent measurements of it, on either a small or a large scale, is not difficult. The data are frequency-distributions of preferences. The curves which these approximately fit are in form like the familiar curves of utility, demand, and price.

7. Concerted Volition

In the course of pluralistic behavior above the instinctive level conscious agreements arise. Propositions are put forth and are "talked over." There begins to be "a meeting of minds." Collective choices or decisions are made. There is a concert of wills, a concerted volition.

Like the volition of an individual, concerted volition is of various degrees of completeness. There may be only an incipient impulse, that dies out before behavior is visibly affected and that is known in consciousness only as an unexpressed choice or perhaps only as a wish. Or there may be a consciously apprehended decision, which is expressed in words or in gestures or through other media. As the vote of a committee or of an assembly or, on a larger scale, as a political election, concerted decision expressed in words is an important behavior. Finally, concerted will may be expressed in collective action, brief or persisting.

In a normal population there are individuals of every grade of mentality, and more individuals of each intermediate grade than of the lowest or of the highest. Inasmuch, however, as all highly reflective individuals are also dogmatic, sympathetic, and instinctive, and all dogmatic individuals are also emotional and instinctive, and all emotional individuals are also instinctive, there are always in a normal aggregation more individuals that are alike in motor reactions and in appetites than are alike in sympathies, more who are alike in sympathies than are alike in beliefs, and more who are alike in beliefs than are alike in critical intelligence.

From these facts a law of concerted volition follows, namely:

In a normal population the percentage number of individuals participating in a collective decision diminishes as the intellectual quality of the decision rises.[1]

This law does not mean that "the intellectuals" and the "masses" cannot get together. They can and do concur for practical purposes, but only as one element yields to the other. The masses may "believe" that it is expedient to follow a lead that they do not understand but do trust; or the intellectuals may compro-

[1] In New York City the East Side vote on constitutional amendments is light. The heavy vote is in the election districts of Greenwich Village, Morningside Heights, and Washington Heights.

mise with a crowd that stubbornly holds an antagonistic belief. Conviction of the expediency of yielding, trusting, or compromising strengthens and extends as circumstantial pressure increases.

Circumstantial pressure determines the amount of concerted volition in an aggregation in any respect heterogeneous. In a homogeneous group, a majority of all individuals may alike react to varied stimuli, and the stimuli are not necessarily powerful. In the heterogeneous group a majority of all individuals can react in identical or resembling ways to but few stimuli, and these must be powerful; but the more powerful they are, the larger will be the absolute and the percentage number of individuals in like manner reacting to them. This law holds good of conscious decisions as of instinctive acts.

If one hundred or more persons vote "yes" or "no" on each of twenty-five or more propositions, and the number of "yes" votes for two propositions, for three, for four, for five, and so on, is plotted, the resulting frequency-distribution is a skew, whether the voting group is homogeneous or heterogeneous. In many experiments I have not obtained a "normal" (or "chance") distribution. Into the "infinite number of small causes" operative in politics and in legislation a few big influences intrude; which means that great interests always can be and always are manipulated by the purposive will of man. The proposition means, further, that for great historical calamities, like wars, a few individuals are morally responsible. Statisticial sociology affords no basis for historical fatalism.

Concerted volition working itself out in combined action is a conscious and reasoned cooperation, a pluralistic behavior in which like activities or complementary activities are correlated and directed upon a useful achievement through conscious planning.

8. Society

The commingling and the pluralistic activities of individuals who are conscious of themselves and of their behavior, and whose consciousness is conversationalized, is association.

The consciousness of kind, becoming sensitive especially to

resemblances and differences that please or displease, converts association into society, in the elementary sense of the word. The associating unit becomes the socius, loving and seeking acquaintance, forming friendships and alliances with other socii like himself, imitating them and setting examples for them, teaching them and learning from them, and engaging with them in many forms of common activity. Every human being is at once an animal, a conscious individual mind, and a socius.

Association takes on the quality and the color of the prevailing like-mindedness, which may be ideo-instinctive only, and charged with suggestibility; or sympathetic, explosive with contagious emotion and undisciplined imagination; or dogmatic, compact of uncritically accepted beliefs; or reflective, wherein belief is displaced by knowledge and by judgments based on evidence. The concerted behavior of associates, therefore, may be a turbulent "direct action" or an orderly procedure.

Reacting to circumstantial pressure, association generates a social pressure, which increases with the multiplication of like responses to common stimulations, as the pressure of a gas increases with the number and the velocity of its molecules.

Reacting in its turn upon the pluralistic behaviors that have created it, social pressure assembles and combines them in new products, through which it distributes itself. The reacting individuals it constrains to type conformity.

Subjected to social pressure, pluralistic behavior of any kind may become habitual. It may be imitated by one group from another. It may be learned by one generation from another. The accompanying ideas, histories, explanations, and instructions are transmitted from group to group, and from one to another generation in "talk." They become folklore. To the countless cooperations and other pluralistic behaviors that "everybody" participates in and that continue through generations, Sumner gave the appropriate name "folkways," which immediately found place in sociology and soon became a folk noun.

Folklore and folkways are comprehensive. There is no phase of the struggle for existence that they do not enter into and more or less affect.

In its original mode social pressure is not consciously willed.

It is not planned or intended. It is only an inevitably arising product (or by-product) of pluralistic behavior.

But having, as a force devoid of intent, created folkways, social pressure, elemental yet, converts folkways into *mores* and *themistes,* which in turn distribute and apply social pressure and through these reactions develop it into an intended, planned, and consciously concerted pressure.

Mores are folkways that have been selectively affected by emotion, belief, reflection, and conscious inculcation, and that to some extent are socially enforced. Like primary folkways the *mores,* chiefly by penalties of disapprobation and neglect, bear on individuals as such and primarily with reference to their own well-being; but also they are thought of and are made to serve as media of social pressure affecting fellow-beings. The sanctions that enforce them are informal, but may include the use of force in private vengeance.

Themistes are important *mores,* of religion, for example, and above all, of justice. They are *mores* of concerted volition and apply social pressure through boycotting, outlawry, and other social dooms, including death.[1]

In *mores* and *themistes* under the reactions of the social pressure which they themselves gather and distribute, pluralistic behavior is *traditionalized.*

Folkways of every kind, including *mores* and *themistes,* are the most stable syntheses of pluralistic behavior; yet they are not unchanging. Under new and widening experience they suffer attrition and are modified.[2] Instincts, and with them emotion,

[1] See Jane Ellen Harrison, *Themis.*

[2] Numerous ballotings on hypothetical candidates for admission to social organizations have been taken at my request in colleges, merchants' associations, and labor organizations. The grounds of exclusion are offenses against morals and manners and certain personal matters. They are named in a list of twenty-seven items made in advance and submitted to the voters. The method of proceeding has been carefully explained and controlled. More than 50 per cent of the voters blackball for notorious cruelty, dishonesty, frequent drunkenness, gambling, sexual immorality, and personal uncleanliness of body and dress. Less than 50 per cent of the voters blackball for habitual borrowing of money from acquaintances, ungrammatical speech, atheism, inability to write a correctly worded letter, questionable political affiliations, and shabby dress. Notorious cruelty is the vice most objected to by both men and women. Dishonesty ranks second in offensiveness to men and sixth to women.

and imagination, which largely fills the vast realm between instinct and reason, are reconditioned. The word means simply that reflexes and higher processes subjected to new experiences are in a degree or entirely detached from old stimuli and associated with new ones.[1]

From time to time also traditions are invaded and habits are broken down by crisis. Pluralistic behavior then is scrutinized, criticized, estimated, discussed. It is rationally *deliberated.*

Viewed broadly as reaction instead of strictly as reflection, deliberation arises in the individual mind as a conflict of reactions to stimulation. On the larger scale of social phenomena deliberation arises when there are conflicting group or class reactions to a common stimulation.

Therefore the probability of deliberation in a social population increases with the multiplication of groups that react differently to a common stimulation and with the approximation of the differing groups to numerical equality.

The members of a group in which pluralistic behavior is both traditionalized and deliberated talk much about the group as a group, and of their membership relation to it. They converse about their common lot—of danger or opportunity. They profess to think about common interests, to care for group performance and achievement, and to be sensitive to group prestige.

There is, accordingly, a complex of pluralistic behavior facts which includes common situation and common stimulation, similarity of reaction, a consciousness of kind, cooperation, tradition, discussion, a proclaimed concern for the group, and sensitiveness to its prestige. This complex is the social solidarity.

Otherwise named, the social solidarity is the social mind. This name does not denote any other consciousness than that of indi-

Frequent drunkenness ranks second in offensiveness to women and thirteenth to men. More men than women object to personal uncleanliness of body and dress.

[1] A piece of meat in a dog's mouth causes a flow of saliva. A Russian psychologist, Pawlow, tried the experiment of tinkling a bell when the dog was fed. In course of time the tinkling of the bell without the presence of the meat called forth the reflex and produced the salivation (Robert Sessions Woodworth, *Dynamic Psychology,* p. 82). Hundreds of similar experiments suggested by Pawlow's have demonstrated that simple reflexes and elementary instincts can be reconditioned, practically at will. This possibility is the basis of our power to learn.

vidual minds; it does denote a consciousness of individual minds similarly reacting, and reacting in reference to and upon one another. The social mind is the phenomenon of individual minds in communication with one another, acting upon one another, and acting concurrently. The self-consciousness of a class or of a group is the consciousness of each individual that there is a group, that he is a member of the group, and that the other members of the group are feeling toward it as he feels, and thinking of it as he thinks.

The decision of the social mind is social purpose. The momentum of the social solidarity is a consciously controlled social pressure of almost irresistible power. It may constrain pluralistic behavior and curtail individual liberty to any degree. The individual himself it both constrains and disciplines. It makes the many individuals upon whom it bears increasingly alike in nurture and in habits. It produces conformity to a type.

The degree or intensity of social constraint, however, is not determined by reasoned choice. It is governed by circumstantial pressure, to which it is elastic. When we entered into the European war many timid souls feared that we should lose our liberties. They believed that we should become militaristic and Prussianized. They were right in part but largely they were wrong. The war restricted liberty, as the Civil War did. Peace removes restraints as it did after 1865. And war is not the only circumstantial pressure that limits liberty. Herbert Spencer was right in his insistence upon the constraining effect of war, but he did not adequately measure the importance of other circumstances that also curtail freedom. To mention one of recent occurrence, when infantile paralysis became epidemic in 1916, hundreds of American towns and cities established local quarantines. Guards stationed on highways stopped and searched automobiles, and suspicious parties were turned back. Furthermore, the social pressure through which circumstantial pressure constrains is not only political and legal and brought to bear by government; it appears and develops also as a spontaneous pluralistic action, unorganized at first but tending to become organized. For example, the modes that it has assumed in money-raising drives are numerous and many of them are highly coercive.

Society not only constrains its members, but also by disciplining them and forcing them to conform to type it selects, conserving some and rejecting others.

Biology unaided by sociology cannot show where, when, or how the "better" may be the "fit" that survive. Darwin saw the problem and its solution, but he did not work it out.[1]

Society favors individual units that have team-work value and directs its adverse pressures upon units that obstruct or imperil the collective struggle.

Tolerance, sympathy, and intelligence have team-work value in a preeminent degree and, therefore, survival value in a preeminent degree, in society.

Society, therefore, converts the "survival of the fit" into the survival of the "better," if by the "fit" we mean individuals who by organization and instinct are adapted to a situation as nature has made it, and by "better" we mean individuals who by feeling and intelligence are adapted to a situation modified and being modified by combined effort guided by reflection.

How much the social community may achieve, transforming the "fit" into the "better" and, in its pursuit of happiness, obtaining substantial results, is a problem in the utilization of energy.

The strength, or potential energy, of a group is the product of the number of individuals composing it, by various weighting coefficients, among which are vigor, intelligence, and knowledge.

The working efficiency of a group of given strength is a function of certain arrangements which may have had an accidental origin, which in part are products of a merely random experimentation, but which in a large and always increasing measure are brought about intentionally by superior individuals.

These arrangements are the social organization.

III. The Organization of Collective Interests[2]

9. Protocracy

Not all individuals react to a given stimulation with equal promptness, or completeness, or persistence. Therefore in every

[1] *The Descent of Man*, chs. iii, iv, v.

[2] Gustav Ratzenhofer and Albion W. Small, who has interpreted him to the English-speaking public, have most fully discussed the general aspects of "interests."

situation there are individuals that react more effectively than others do. They reinforce the original stimulation and play a major part in interstimulation. They initiate and take responsibility. They lead: they conduct experiments in a more or less systematic fashion.

Those individuals that react most effectively command the situation and create new situations to which other individuals must adjust themselves. Few or many, the alert and effective are a protocracy: a dominating *plurel* from which ruling classes are derived. Protocracy is always with us. We let George do it, and George to a greater or less extent "does" us.

Where two or three in quick or daring reaction are gathered together to "start something"—a dance or a revolution, or anything between—there is protocracy, and it gathers power if the enterprise succeeds; for then protocracy recognizes or ignores, gives out invitations or denies them, opens or bars opportunity, protects or attacks, rewards or punishes, and so surrounds itself with beneficiaries and retainers through which it works its will.

Protocracy may owe authority and power to the majority that it dominates, but it has obtained them and it holds them by psychological ascendancy.[1] The majority may withdraw authority and power from a protocracy that it has trusted, but only if another and rival protocracy arises and becomes ascendant.

Domination may amount to rule or it may not get beyond leadership and direction.

Rule may be imposed and maintained by force, or by inspiring fear, or through purchase, bribery, or bestowal of favors. The protocracy has advanced knowledge of opportunities, and is in a position to dispense offices and perquisites. If it does not actually rule, it dominates by winning the uncoerced and unbought approval of the mass, often through a manifestation of ability, integrity, or beneficent purpose. The methods of minority domination are commonly found in combination, but the proportions are variable.

The concentration of controlling power in society is a function (in the mathematician's sense of the word) of the behavioristic

[1] We owe to Edward Alsworth Ross the significant technical connotations of this word in sociology.

solidarity. The more homogeneous the behavior and the greater the like-mindedness, the broader is the basis of protocratic domination and the less autocratic is its authority.

The degree of domination and the extent and the rigor of control are functions of circumstantial pressure.

10. The Organization of Relations

The more or less definite arrangements of position and of activity into which individuals fall in the collective struggle for existence are shaped at first by a hit-or-miss trial of possibilities that amounts to little more than a haphazard "fitting in." In the long run they are shaped by a thought-out trial and correction proposed and systematized by protocratic minorities. Ultimately, after much experimenting and with frequent reconsideration, they are approved by the social mind expressing its will through majorities. So arising and established, arrangements of individual position and of individual activity are a mechanism through which social reactions work aggressively, defensively, productively, and with controlling incidence.

Described concretely, the social mechanism is a social composition, a product of integration; and a social constitution, a product of differentiation.

The smallest and simplest arrangement of individuals by position is the "bunch." It may be a genetic product, its units having been born into proximity, or it may be a casual assemblage. A relatively large bunch or a cluster of bunches, especially if identified with a place or region, is a group.

The smallest and simplest arrangement by activity of individuals that go or work or play together is the "gang." It is a product of like reaction by nervous mechanisms that are alike in a specific (or differential) way. They have the same specific aptitude or interest.

They are a "gang," however, only if, reacting to a common stimulation or necessity, they "carry on" together.

Whether assembled or scattered, going in gangs or not, individuals of like aptitude and interest and therefore functioning in like fashion are a class. As an observed fact, a class is usually made up of both gangs and isolated individuals.

In the creation of bunch or gang, of group or class, alert leadership plays an essential part. In every group and in every class there is a dominating protocracy.

By combination and recombination groups become the social composition.

Sex mating and the birth of children create families. Numerous families hold or drift together in residential relations; others drift apart. Those that hold together compose the horde (of savage men) or the village (of civilized men). Hordes combine in tribes, and tribes in tribal federations: the ethnic series. Villages grow into towns, and towns into cities. Towns or cities compose provinces, departments, or commonwealths, and commonwealths hold together in federal nations: the demotic series.

Ethnic societies are genetic aggregations. Either a sacred power or "mana" manifest in totem and regarded in taboo or a real or a fictitious blood kinship is their chief social bond. They are otherwise known as tribal societies and they include all communities of uncivilized races which maintain a tribal organization. They are of two general types, namely, the matronymic, or matrilinear, in which names and relationships are traced in the mother-line, and the patronymic, or patrilinear, in which names and relationships are traced in the father-line. Demotic societies, otherwise known as civil societies, are products in some degree of genetic aggregation, but they are largely congregate associations. They are groups of individuals that are bound together by habitual intercourse, mutual interests, and cooperation. They emphasize their mental and moral resemblance and give little heed to origins or to genetic relationships.

The evolution of the social composition has been a double process. As small groups have combined into larger ones, they also have subdivided into smaller ones. The unit of composition has become both smaller and more definite.

When small hordes combined to form tribes, they commonly at the same time subdivided into polyandrian families. When tribes, in their turn, banded together in confederations, the polyandrian household underwent changes which converted it into the patriarchal kindred or compound family. Later on, when federations of tribes became the political state, the compound family

broke up into single families, each consisting of father and mother and their immediate children, but no longer including, as in the patriarchal kindred, married children and grandchildren. Each family remained, however, an industrial unit, parents and children earning livelihood together, and each in a large proportion of states remained legally indissoluble.

Now, when political nations are combining into world-empires, the single family, like its predecessors, has ceased to be an industrial unit, and has nearly everywhere become legally dissoluble. More and more it depends for its integrity on unforced personal choice. Human society is becoming humanity, and its unit is no longer the legally indissoluble family but is the freely choosing individual.

At every step in this long developmental process, three things have happened. The dominant social group has entered as a component into a larger social grouping. The smallest social group has subdivided, thereby establishing a new social unit. The intermediate social groups, losing their identity, have tended to atrophy and in many instances have disappeared.

At every step in the evolution protocratic example or proposal has incited or restrained and protocratic intelligence has directed.

Gangs and classes by multiplication and increasing interdependence following upon increasing specialization become the social constitution, a scheme of working or otherwise functioning arrangements which makes a cross-classification with the residential arrangements of the social composition. Familiar examples of working arrangements become too dignified to be called "gangs," except for purposes of scientific analysis (although that is what in strict scientific analysis they are) and making numberless cross-classifications with residential groupings are, business partnerships and corporations, political parties, churches, philanthropic societies, schools, universities, and scientific associations, social clubs, and societies for recreation and pleasure.

Each of these associations is obliged to exchange services or products with others. It could not otherwise exist. The functioning of all of them in their several ways is the social (including the economic) division of labor. Interdependence increases with every new specialization in skill and in occupation. Because of

their interdependence they are accurately described as constituent societies.

Inasmuch as the constituent society has a defined object in view it is purposive in character. Its members are supposed to be aware of its object and to put forth effort for its attainment.

Purposive grouping, therefore, may be described as functional association, and the mutual aid of purposive associations is not limited to a mere increase of mass and power, as is the mutual aid of component society. It is effected also through an advantageous division of labor.

Psychologically the social constitution is an almost precise opposite of the social composition. Component societies require mental and moral like-mindedness, but within the limits of a common morality there may be no insistence upon any one point of similarity as long as the aggregate of resemblances remains large and varied. Subject to these conditions, the differences among the members of a component society may be of any imaginable kind. The social constitution, on the contrary, is an alliance, within each simple association, of individuals who in respect of the purpose of the association must be mentally and morally alike, but who in all other respects may be unlike; supplemented, in the relations of associations to one another and to integral society, by toleration and by correlation of the unlike.

As the social constitution develops, the membership of constituent societies falls into hierarchical arrangements, thereby creating new complexities. Priests, bishops, archbishops, and cardinals in the church; teachers, principals, and superintendents in the schools, are examples. In more technical words, throughout the social constitution there may be observed superordination (superiority of rank), coordination (equality of rank), and subordination (inferiority of rank). The one word "coordination" is commonly used to designate the phenomena of subordination, coordination and superordination, in their totality.

Correlations and coordinations are products of relations of units to one another and of modes of activity that are unchanging, or nearly so. They are static phenomena of structure. But the activities of social as of plant or animal units are not without

exception or always unchanging. There are adjustments and adaptations in crises as well as in tranquil circumstances.

Activities of adaptation and of adjustment involve points of contact (the neurons ramifying in a bit of muscle are a good example) and actual contact. They involve lines of communication and arteries of transmission, and actual communications and transmissions. They involve central or focal points of accumulation and distribution, and actual centralizings and decentralizings, storings, and distributions of materials and energies.

Corresponding to the morphological aspect of arrangements is the functional aspect. Through accumulation and distribution, through correlation and coordination, activities go on in an orderly and measured way. Even the increase and the decrease of intensity, the enlargement or the diminution of volume, the swifter or the slower rate, are facts of order and measure; they are facts of control.

When spontaneously formed relations and thought-out arrangements devised by protocracy have become so well established that they challenge the attention of all members of the community, they become subjects of common discussion and of general approval or disapproval. Subjected then to analysis and criticism, and finally by concurrent opinion pronounced good, evil, or doubtful, they are thenceforth tolerated and their development is encouraged, or they are discouraged or even stamped out by a concerted action more general than that which created them.

Described abstractly, therefore, the social mechanism is a correlation and a coordination of socially reacting units.

Both as correlation and as coordination the social composition and the social constitution develop with increasing necessity for collective action. Under this necessity organization becomes more extended and more hierarchical.

Yet mere intensity of the struggle for existence does not develop complexity of organization as long as the struggle can be carried on by individual effort or by small independent groups. Perhaps nowhere in the world is the life of a population subsisting by agriculture harder than in China, yet the agricultural population there is relatively unorganized. By individual effort, unremitting and

intense, the individual applying himself to labor on the land has been able to wrest from it a meager living.

Any social group, component or constituent, may be a privileged and closed group, or a selectively open group, or an indiscriminately open group.

Eligibility to membership in a privileged and closed group is governed by consideration of source. Descent from members of the group in a former generation is one of the oldest and best-known requirements. Membership in an antecedent group or category may be the requirement: an example from modern industry is the closed-shop requirement of membership in an orthodox labor union.

Eligibility to membership in the selectively open group is determined by the functioning value of members individually for the functioning of the group collectively.

In the indiscriminately open group there are no eligibility tests.

Increasing circumstantial pressure substitutes closed or selective groups for indiscriminately open groups; a phenomenon which always appears during war, in periods of religious enthusiasm, and in times of industrial strife.

The social organization may become flexible while developing strength and stability. When circumstantial pressure is not more intense than it is in modern times in days of peace, the individual can go freely from occupation to occupation. He can dissolve a partnership and enter into another. He can be a director in one and another corporation this year and in entirely different ones next year. He can move freely from township to township, from city to city, and from state to state. He can leave his church or his political party at will.

Yet the social constitution does not suffer. The organization that loses certain individuals from its membership gains others in their place. Like organs of the living body, each is composed of changing units, yet each maintains its integrity as a whole and performs its function without interruption.

From this plasticity and mobility two great advantages arise. Sooner or later individuals find the place where their maximum efficiency as contributors to the social well-being is realized. And at all times an increase of working force can be secured at any

point in the social system where the demand is exceptionally great, by withdrawing units from points where the demand is for the time being relatively small.

II. The Organization of Action

Woodworth's clarifying generalization that all the phenomena of the individual mind may be assigned to one or the other of the two categories, "mechanisms" and "drives," [1] is applicable also in the psychology of society. The organization of social relations is a mechanism, as has been shown. The organization of action is a correlation and coordination of drives, and the product is a procedure. Collective struggle tends to become an orderly procedure.

Wherever behavioristic groups are found, collective struggles are seen to fall into one or the other of two series of drives. There are conflicts of group with group, inter-group conflicts; and within each group there are conflicts of faction with faction, intra-group conflicts.

Both component and composite groups—hordes, tribes, towns, and nations—contend with one another for possession and control of advantageous regions. From the moment that increasing populations begin to press upon food-producing resources, there is a struggle for dominion and subsistence. Hungry populations throw off colonies, which go forth as invaders, to conquer; the invaded populations resist.

The major conflicts of inter-group struggle are foreign wars, and these extend and consolidate the social composition. Successful invaders, having conquered, annex lands and populations. Threatened communities, especially if of one blood and speech, combine by federation.

In peace and in war, gangs, including protocracies, contend with one another for ascendancy and revenue. Under circumstantial pressure gangs of like kind and like function tend to consolidate, and thereby to become a class. In the struggle with powers of earth and sky for safety and food, religious secret societies become a priesthood. In war, fraternities of braves become an army and a military class.

[1] *Dynamic Psychology.*

With the rise of these two classes a succession of class struggles begins. The shallowness of the Marxian philosophy of history is in nothing more concretely shown that in its naive assumption of *the* class struggle, as if the clash between capitalist and proletarian were a phenomenon unique. The first class conflict is between army and priesthood, and the army wins. In exchange for religious sanction military adventurers then "let in" the priesthood and create, by the combination, a landlord class to exploit free tenants and serfs. Free tenants (some of them) become a merchant class, and the next class struggle is between it and the landlords. The merchants win, and in exchange for social recognition "let in" the landlords. This new consolidation creates the capitalist class, to make profits by organizing and employing the labor of emancipated serfs.

The major intra-group conflicts, accordingly, are revolutions.

Conflicts among groups, including national groups, and conflicts between classes are the major phenomena of history.

In the drives of war and revolution protocratic rule broadens into sovereignty: "the dominant human power, individual or pluralistic, in a politically organized and politically independent population." [1] Sovereignty is never under any circumstances the absolute power to compel obedience babbled of in political metaphysics. It is finite and conditioned. It is not even an indivisible unit of power; it is a composition of forces. The forces are variable and their composition is variable.

A group in which protocratic rule has become sovereignty, and which is independent to the extent that it is not subject to the sovereignty of any other group, is a state. Outside of the metaphysical mind the state is never an abstraction. It is a politically organized population, and altogether concrete.

Conflict between or among petty sovereignties creates the local state; conflict between or among local states creates the regional state; conflict between or among regional states creates the nation; conflict between or among nations creates the empire.

The local state is supreme until the regional state supersedes it. The regional state is supreme until the nation supersedes it. The nation is supreme until the empire supersedes it.

[1] Giddings, *The Responsible State,* p. 50.

Individuals are not absolved from responsibility to the small component groups to which they have belonged when they become responsible also to large groups of which they are made members through social integration; but responsibility to a large group which, as a mutual benefit association, is relatively effective and important, tends to override responsibility to its component lesser groups and to constituent societies.

Nevertheless, individuals do not in a majority of instances give highest allegiance to the largest organization that they might help to form, and which may be thought of as in the making. There is, therefore, a major number of instances of highest allegiance to the largest existing aggregate. At the present time the largest existing aggregates are nations, and more individuals give highest allegiance to the nation than give it to the commonwealth, the province, the city, the village, or the family, or to any hereditary caste or rank, or to any social class, or than are yet prepared to give it to a league of nations.

Sovereignty may be concentrated in an individual, a monarch, or a dictator, or in a lesser degree concentrated in a class or in an amorphous mass or majority, or it may be diffused throughout a democracy. The degree of concentration is a function of the social like-mindedness, more or less, and of the circumstantial pressure.

The supreme will of a state (in whatever mode of sovereignty manifested) expresses itself and achieves its end in various ways, but chiefly through government, which may be defined as the requisition, direction, and organization of obedience. It is the most important and, all in all, most systematically ordered procedure known to society.

The sovereign may govern directly or may delegate the function of governing to authorized ministers or agents. Direct government by the sovereign is necessarily an absolute rule. Indirect or delegated government may be an absolute or a limited rule. Limitations, however carefully embodied in written constitutions, are actually observed only in those states whose populations are so far like-minded that even their governmental activities are in reality more like forms of spontaneous cooperation than like an overruling direction. The real limitations are certain well-stabi-

lized popular habits. Minorities bow to the will of a majority, but in the understanding and on condition that they have liberty by speech, publication, meeting, and all other peaceful and reasonable ways of campaigning to increase their numbers and, if possible, become majorities.

The range and severity of government are determined by circumstantial pressure.

Sovereign power may act fitfully, unexpectedly, or at random; or it may act methodically, after a declaration of purpose and adhering to promulgated rules. Sovereign purpose formulated, promulgated, and enforced is law, and governmental action within the bounds of law is "due process of law."

Law is a form and a content. A large part of the content of law is a body of rights. In large measure the basic substance of legal (or positive) rights is drawn from the "natural rights" of the *mores*.[1]

A further content of law is a more or less consistent and organized group of policies, becoming, as time goes on, a series of policies intended to assure and to further collective achievement.

First in time and in importance are policies of growth and expansion, and of safeguarding against enemy attack or other immediate calamity. When formulated and put into execution by an absolute monarch bent upon perpetuating and extending the rule of a dynasty or by an adventurer-despot or despotic group, these policies become militarism, a rationalistic and quite cold-blooded attempt to organize collective power for aggressive action and to apply aggressive action relentlessly to the task of subjugation. Republics have to wage wars, but no republic, so called or described by any one using words responsibly, has ever been militaristic.

Mankind has not been able to enjoy peace by wishing it, approving it, or even by willing it or planning it.

The rise and the decline of militarism conform to the laws of increasing and of diminishing return. For a time it may bring in more than it costs; but a point is reached beyond which the costs increase faster than the returns. In the rivalry of nations for territory, the lands available for annexation by any one of

[1] See Giddings, *ibid.*, ch. iii.

them become fewer in number and more difficult to obtain. The frontier is extended, and its defense becomes more difficult and more costly. The maintenance of armies of increasing size entails a relative diminution of the industrial population available to support them. Nations vie with one another in perfecting the enginery of war, and the cost of all military operations is thereby increased.[1]

Observe, however, that this argument applies only to militarism, a rationalistic phenomenon. It does not hold true without qualification of war merely as war. As individuals fight in sheer rage, or in scorn of one another, or in resent of insult, so nations also fight in fear and in hatred, in insolent contempt of one another, and in vindication of their honor. Utilitarian considerations do not apply to these tempests of wrath.

Successful war prepares the way for exploitation and stimulates it. The annexation of territory, the creation of colonies, and the establishment of dependencies bring lands and peoples hitherto foreign into direct relations with the conquering nation. Exclusive or preferential trade relations are established. Conquered people may be enslaved, or compelled to toil as serfs, or as a nominally free labor force be kept under strict subjection by economic or other means.

Like militarism, exploitation is governed by the laws of increasing and diminishing return. A point is found beyond which slavery or any mode of enforced labor becomes unprofitable in competition with free labor, and beyond which exclusiveness and privilege in commercial relations provoke an increasingly costly antagonism. Moreover, exploitive industry and commerce tend to exhaust natural resources, and they are consistent with relatively crude economic methods only.

In the most advanced modern civilization there is a partial superseding of policies, both of subjugation and of exploitation, by policies of assistance. Strong peoples extend educational advantages, relief of acute distress, and to some extent economic opportunity to backward races and to dependent peoples. Great Britain has performed this task and rendered this service on a vast scale

[1] Compare William Graham Sumner, *War and Other Essays* and *Earth Hunger and Other Essays.*

and with a patience, common sense, and success that the world, now envious, will one day recognize. America has fed a starving Europe, and cared for her sick and injured, and helped to restore her devastated areas.

Miscellaneous in character and of slow growth are policies of conservation, development, and efficiency to prevent future want or failure. Among these, policies of conservation of material resources and of accumulation of material goods are fundamental. They appear in a small way at the dawn of civilization in conservation of water supply, in drainage and irrigation, but they develop slowly and it is only in great modern nations and empires that they are systematically organized. Yet more slowly grow policies of conservation and efficiency of human resources and for the prosperity of the population. These comprise policies of sanitation, of education, and of economy, including (*a*) policies primarily for property-owning classes, (*b*) policies primarily for service-rendering classes, (*c*) policies primarily for the poor, the unsuccessful, the relatively weak, and the unfortunate.

The execution of these policies may be undertaken by government or committed to private agencies subject to conditions and limitations fixed by law.

It comes to pass, therefore, that governments and private organizations in a measure duplicate each other's functions. The actual distribution of functions between public and private agencies is a varying one. It changes with changing circumstances, that is to say, with the degree of like-mindedness and with circumstantial pressure.

Not only security and resources but also the composition of the community, the equalities of its individual units, and their relations to one another, to the several minor groups to which they belong, and to the integral society, are factors of effectiveness. To control these and to improve them, policies of selection, of unification and standardization, of liberty, and of equality are devised and tried.

Policies of unification and standardization include attempts to standardize and unify language, religion, behavior, opinion, communication, education, business, law, politics. They aim to perfect the behavioristic solidarity of the group. Assimilation is

watched with concern. Laws are enacted or edicts are promulgated to hasten on the change. One language must be spoken throughout the community. One religious faith must be embraced by all. One consistent economic policy must be followed. One standard of conduct and of legality must be established for all citizens. Within the voluntary organization, a religious denomination, for example, or a trade union or a political party, an attempt is made to persuade or to compel all members to believe the same thing and to conduct themselves in like manner. A creed, a body of rules, or a platform is imposed. An orthodoxy or regularity is insisted upon as a primary obligation.

The extent to which these policies are pushed is determined by circumstantial pressure.

Policies of liberty are reactions against the restraints, amounting often to intolerable coercion, of excessive unification. They aim at a toleration of variety, of individual initiative, of freedom of thought, speech, and conduct. They take legal form in bills of rights and constitutional guaranties of liberty.

Policies of equality are reactions against the abuse of liberty by men and parties that take advantage of their freedom to curtail the opportunities of their fellows and to exploit them. They aim to establish an equality of liberty and, as far as possible, of opportunity. They include the establishment of political equality through universal suffrage, equal standing before the law, the abolition of state-created privileges in the realm of economic interests, equality of educational opportunity, and measures for the protection of the weak, particularly women and children, in the economic struggle.

Not only do policies of security, conservation, selection, and standardization start reactions toward liberty, and policies of liberty provoke reactions toward equality; but also the process reverses: experiments in equality provoke reactions toward liberty, and experiments in liberty provoke reactions toward unification and selection.

The static state of perfect adjustment and consequent equilibrium is unattainable because of an inherent contradiction between personal or subjective equality and objective or social equality. The conditions that tend to create subjective inequality

tend to establish objective equality, and, conversely, the creation of objective equality tends to increase subjective inequality. Therefore social evolution, like organic evolution, creates increasing inequality of personality. At the same time, however, it creates increasingly large classes of individuals that as persons are substantially equal within the same class.

"Social justice," as the term is popularly understood, comprises an equalization of both rights and opportunities. Justice in a larger sense of the word comprises all adjustments of social factors: individuals' interests, relations and actions to one another and to the social whole. It includes, as those who have defined it in the main agree, the definition and enforcement of rights, the redress of injuries, the maintenance of sanctions, the equalization of rights and opportunities, the adjustment of rewards to performances; but it includes also much more and the "more" is immeasurably delicate and difficult. It consists in unceasing readjustment.

Readjustment is made necessary by ceaseless changings of circumstance and by continuing change in demotic composition and in pluralistic behavior. The social population fluctuates about a kind or type. Behavior fluctuates about a mode or norm. The range of variation at one time is narrow; at another time it is wide.

Policies of selection, unification, and equilibration recognize and sanction modalities. Policies of liberty recognize and sanction variation. Readjustments change the range of permissible variation.

Therefore justice in its highest and most delicate development is a ceaselessly changing adjustment of equalities and modalities to immunities and liberties, and of immunities and liberties to modalities and equalities.

No arrangement of finite affairs is finally and forever just.

Through its policies and its readjustments of policy organized society in a measure controls variation about its own modes. It exercises self-control.

12. Organized Society

The reaction of social organization upon the interplay of like- and unlike-mindedness and upon the consciousness of kind reshapes the social mind, as Cooley [1] has contended.

The process is experimental, and highly concrete. Unorganized pluralistic reactions are simple and direct in form. Human energy explodes in trial and error. But turmoil and riot, like the hit-or-miss assaults of an untrained fighter, are wasteful expenditures. If, however, the flow of energy keeps up, it finds points of low resistance and begins to follow channels that branch and cross. Social organization, like the individual nervous system, correlates and coordinates these branchings and crossings, and more and more diverts energy into them. Thereby it transforms much direct and simple action into indirect and complex action.

The transformation normally goes so far that direct pluralistic action becomes subordinate to indirect action, as instinct in the individual mind normally becomes subordinate to reason. General strikes and revolutionary violence give way to constructive policies and to due process of law. Direct action is primitive, and unsubordinated direct action is uncivilized.

Yet this evolution can begin and continue only if there is direct action (crude pluralistic reaction to stimulus) to transform; and only if the inequalities and diversities of reaction that are necessary for differentiation, and so for any organization whatsoever, are normally subject to a dominating like-mindedness in matters of major importance. This proposition is perhaps less obtrusively true of the economic division of labor that Adam Smith expounded than it is of the "division of social labor" that Durkheim [2] expounded; but it is demonstrably true of both.

Adam Smith apparently never saw the true relation of *The Wealth of Nations* to *The Theory of Moral Sentiments,* although he was looking directly at it all his days. When in *The Wealth of Nations* he had demonstrated that an increase of wealth is made possible by division of labor, that the division of labor is limited by the extent of the market, and that extent of the market is extent of demand, he did not then by resolving extended demand

[1] Charles Horton Cooley, *Social Organization.*
[2] Emile Durkheim, *De la Division du Travail social.*

into pluralistic demand discover its identity with like-mindedness, of which, without so naming it, he had discoursed in *The Theory of Moral Sentiments.* Therefore he did not appreciate, he probably did not quite see, the broad social fact that the differentiation of productive effort is limited by the extent of like-mindedness in respect of consumption.

As for the larger division of social labor, a population that is not prevailingly like-minded is collectively ineffective (and usually chaotic) or it is ruled and organized by the strong arm. Only like-minded communities are capable of democratic self-government, and only the like-mindedness that is enlightened and deliberative can create and maintain a liberal democracy. Proof is superabundant. Mexico is the great modern example. Without a meeting of minds on large and fundamental issues Mexico submitted to order and made material progress under the despotism of Diaz, only to fall into a chaos of conspiracies when despotic rule ended.

As a mechanism organized society is good or bad. A good machine is coherent and elastic to pressure. An organic machine —namely, a plant, an animal, or a man—is also adaptable to crisis or change. Man has succeeded in making machines adaptable in a small way; the clock with a pendulum, the turbine and the steam engine equipped with automatic cut-off to control the feed of water or of steam, are familiar examples; but he has not yet made a machine comparable in adaptability to a living organism or to a society. Adaptability turns upon the variability of units; cohesion upon the typicalness, uniformity, or standardization of units. Anarchism, or lawless individualism, is excessive variability and non-cohesion. Socialism is excessive standardization and deficient adaptability. Individualism is theoretically a working combination of enough like-mindedness for collective effectiveness with enough unlike-mindedness for organization and progress. Theoretically, therefore, individualism at its best is the best social system because, more adequately than any other, it combines cohesion, elasticity, and variability; but individualism at its worst may be as bad as anarchism which is anti-social. Socialism is a revolt against anti-social individualism. Socialistic policies may be expedient as restraints of anti-social conduct and to supplement

private cooperation; but on the whole and in the long run they are justified only to the extent that they develop a social individualism.

IV. The Achievements of Organized Endeavor

13. Amelioration

The immediate business of organized endeavor is to mitigate the struggle for existence in a large way and effectively and to make life worth while. Its ulterior business and supreme function are to develop human personality.

Organized endeavor mitigates the struggle for existence by accumulating knowledge, amassing capital, and conducting government. By means of these activities and achievements life is made relatively secure, comfortable, and satisfying.

The accumulation of knowledge has been the work of unnumbered generations tirelessly groping and exploring through ages measured presumably by millions rather than by thousands of years, as the world once thought. No argument is necessary to prove that without society and organized endeavor the achievement of knowledge would have been impossible. Folkways, folklore, and tradition have been necessary. Education has been necessary. Organized investigation, writing, printing, libraries, and laboratories have been necessary.

Without society the capital acquired by man could not have exceeded the bees' store of honey, the beavers' dam, the apes' club, the savages' chipped flint. There could have been no agriculture, no domesticated animals, no exchangeable goods, and no money. Without organized endeavor there could have been no mechanisms, no boats, no roads, no mines, no mills, no banks.

Without multiple and differentiated societies and organized endeavor on a big scale there could have been no governments; for among them all there is not one that is not a product of foreign wars and domestic revolutions.

Knowledge, capital, and government are necessary for security against armed enemies, against tempest and flood and fire, against pestilence, against famine and pitiless cold. They are necessary to establish equity by balancing equality against liberty. They are

necessary to expand and to clarify thought and to diminish fear.[1]

Organized endeavor has achieved these things; it has progressively ameliorated the human lot.

14. Mutation and Variation

Variant organisms are relatively unstable: they are relatively frail, and they perish more easily than do their kindred competitors that more closely conform to type. All depends, therefore, on the severity of the struggle. Whatever mitigates the struggle multiplies the survival chances of variants that may develop a high degree of individuality. It is because the social organization of endeavor has ameliorated the life of man that the human race is above all other species variable and adaptable; capable of extraordinary differentiation of aptitude and able to meet crises with amazing skill. This is not the result of any physical transmission of acquired traits. It is, as far as we can see, altogether a consequence of the social mitigation of natural selection. Protected and sustained by society, frail and unstable individuals, cranks and oddities, crooks and martyrs, idiots and geniuses, who would miserably perish in a "state of nature," survive and pass on their qualities in Mendelian distributions. The problem of disposing of the crooks and the idiots, or of enduring them, is the price we have to pay for the geniuses and their contributions to our joy.

The study of human variation in its sociological aspect is a statistical investigation.

There is a range of structural and physiological adequacy between extremes of defect or deformity and of completeness or balance. Vitality as measured by energy, health, fecundity, and longevity ranges from relatively low to relatively high extremes. Mentality ranges from idiocy to genius, and character from depravity to magnanimity.

Hardship and a standardizing social pressure, elastic to an increasing circumstantial pressure, shorten all these ranges. Amelioration and increasing freedom (intellectual, moral, and political) lengthen them.

Organized endeavor can always shorten these ranges, and the

[1] Lester Frank Ward's *Dynamic Sociology* remains the most comprehensive study of this field.

temptation to do so is great because stupidity and wickedness annoy us and often anger us, an easy thing to do, while the value of genius we can neither see nor weigh unless we can think (not everybody can) and will take the trouble to think (most of us won't). Probably in no other enterprise has human wisdom made so sorry an exhibition of itself as in its attempts to standardize thought and morals.

15. Socialization

Remembering that with conscious intent and by unconsciously exerted pressure society eliminates much human material that proves to be unfit for social life, we clarify the idea of socialization: a phenomenon of discipline and education, brought to bear upon the socially possible. Socialization is the opposite of mutation and supplementary variation. It is an aggregate of acquisitions, in distinction from native traits. It cannot be transmitted through heredity, but by teaching it can be handed on with compounding interest from generation to generation.

The socialized members of organized society "play the game"; the non-socialized survivors from savagery and interlopers from barbarism do not. The socialized are tolerant and regardful of the rights (natural and legal) of their fellowmen; they are by habit helpful; they value and observe manners; and they can cooperate.

The zero point of socialization is criminality, that degree of departure from prevailing and approved behavior which the community by process of law and with relative severity punishes.

If the range of socialization from zero up be divided into four parts or grade quarters, we get the following distribution of habits and persons:

In the lowest grade quarter are the predatory, aggressors upon person and property, law-breakers.

In the second grade quarter (counting from the lowest up) are the intentionally or willingly dependent, wholly or in part; the self-seeking, intent on getting more than they give; the inconsiderate and irresponsible.

In the third grade quarter are the dependable, the helpful, the considerate, and the responsible, who are also type-conforming, conventional, uninventive, and non-innovating.

In the fourth and highest quarter are the dependable and the helpful who are mindful of the value of social usage but are also independent in thought, courageous, willing to experiment, but cautiously, and with full responsibility for results.

This distribution into quarters is artificial, but it makes observation and recording possible. With competent assistance I have obtained observations of 1,888 individuals comprised in 428 families and all personally known by the observers. The distribution by socialization is:

Grade Quarter	Number of Individuals
I	52
II	317
III	1044
IV	475

16. Individuation

Original nature (inherited traits, variations) and acquired nature (habits, socialization) are mingled, perhaps blended, in individuation.

Individuation begins in the chromatin and proceeds through Mendelian combinations of units. Probably no individual is an exact duplicate of another, and inasmuch as the life-circumstances of each living body are different in a great or a small degree from those of every other body, life would soon cease if there were no organic variability. And inasmuch as the life-circumstances of each individual are in a degree peculiar (in other words, the stimuli that play upon each individual are in a degree peculiar), the behavior of each individual is differential. Among these stimuli in the experience of the human race are social influences and among the reactions are socialization. So by instinct in like measure with lower animals and by habit in amazing measure surpassing the experience of any other species, mankind is individuated.

The range of individuation is upward from a zero point at instinct little above the animal level. Dividing it into grade quarters we get the following distribution of original and acquired traits, and of persons:

In the lowest quarter: instincts strong and not much controlled; sympathy deficient or narrow in range; cruel (when cruelty is manifested) in an unfeeling and brutal rather than in a deliberate and ingenious way; tastes low and crude; ideas elementary, primitive, and limited in number and in range.

In the second quarter (counting from the lowest up): motor impulses variable in strength; instincts infused with abundant emotion, variable from grave to gay; sympathy quick but superficial and unstable; imaginative but without sufficient intellectual power to be creative in literature or in art beyond the simpler products; without strong convictions or a controlling sense of responsibility; ideas relatively abundant and varied but only loosely organized.

In the third quarter: motor impulses of any degree of strength from weak to violent; instincts and passions strong, but controlled by convictions; emotion strong, blended with beliefs, and partisan; convictions tenacious, and a dominant factor in mental processes and in behavior; may be ruthless and cruel under influence of fanaticism; intolerant of doubt, impatient of hesitation, scornful of weakness.

In the fourth and highest quarter: motor impulses, instincts, and passions of any degree from weak to very strong; emotions abundant and varied, may or may not be well controlled; beliefs subject to review and modification; ideas abundant and organized; open-minded, of investigating turn, insistent upon evidence; judicially critical rather than fault-finding or denunciatory; may make discoveries; may be inventive or creative.

With assistance I have obtained observations of 1,536 individuals comprised in 294 families and personally known by the observers. The distribution by individuation is:[1]

Grade Quarter	Number of Individuals
I	82
II	334
III	763
IV	357

[1] Cf. Giddings, "A Provisional Distribution of the Population of the United States into Psychological Classes," *The Psychological Review*, Vol. VIII, No. 4, July, 1901.

In the degree that a human being is individuated he has personality, he is a person.

A person is unique but also social. In a million ways like other persons, he is in many ways unlike any other that lives or that ever has lived. Conforming to type in much, he also significantly varies from type, and variability within race limits there must be, if personality is to develop. Furthermore, the variant must survive and hand on his race. In this necessity lie all the possibilities of achievement and of tragedy.

CHAPTER XVI

FURTHER INQUIRIES OF SOCIOLOGY

In the same large sense in which economics is the science of the production and distribution of wealth, *for* man, sociology is the science of the production and distribution of adequacy, *of* man and *in* man. Economics tells us how, as far as it is possible, we can *get* the things that we desire to *have;* sociology tells us how, as far as it is possible, we can *become* what we desire to *be.* It tells us by what gropings and fumblings, through what relations with one another, and through what experiments in mutual aid mankind has acquired power to survive under varied and changing conditions, power to achieve, and capacity for happiness. Adequacy comprises endurance, health, reproductive vigor, intelligence, self control, ability to make adjustments with others and to get on helpfully with others in cooperation. Society produces these factors of adequacy in the same sense in which the breeder produces desired qualities in animals, namely, by selecting them and providing the conditions under which they can survive. The practical manifestations of adequacy are: individual initiative, individual responsibility, and an individual participation that is efficient and helpful in collective endeavor.

It will not surprise my co-workers in sociology that I as an individual so conceive of our science, because in all my writings for twenty-five years I have insisted, perhaps tiresomely, that society is comprehensible only if we know what it does, and that what it does is to convert a biological survival of the fit for the jungle into a historical survival of the better for human purposes. In other words, as I argued in *The Principles of Sociology* and have since maintained, the function of society is to develop and to safeguard the higher types of human personality.

If I can be said to have a system of sociology it is briefly this:

1. A situation or stimulus is reacted to by more than one indi-

vidual; there is pluralistic as well as singularistic behavior. Pluralistic behavior develops into rivalries, competitions, and conflicts, and also, into agreements, contracts, and collective enterprises. Therefore social phenomena are products of two variables, namely, situation (in the psychologist's definition of the word) and pluralistic behavior.

2. When the individuals who participate in pluralistic behavior have become differentiated into behavioristic kinds or types, a consciousness of kind, liking or disliking, approving or disapproving one kind after another, converts gregariousness into a consciously discriminative association, herd habit into society; and society, by a social pressure which sometimes is conscious but more often, perhaps, is unconscious, makes life relatively hard for kinds of character and conduct that are disapproved.

3. Society organizes itself for collective endeavor and achievement, if fundamental similarities of behavior and an awareness of them are extensive enough to maintain social cohesion, while differences of behavior and awareness of them in matters of detail are sufficient to create a division of labor.

4. In the long run organized society by its approvals and disapprovals, its pressures and achievements, selects and perpetuates the types of mind and character that are relatively intelligent, tolerant, and helpful, that exhibit initiative, that bear their share of responsibility and that effectively play their part in collective enterprise. It selects and perpetuates the adequate.

This, I think, is an intelligible and rather straightforward way of explaining society. But society is the most intricate tangle of happenings and relationships that the scientific mind can investigate. It can be approached in many ways. It has been described in many formulas, not obviously identical. It is, therefore, quite in order to ask whether the definition of sociology that I have submitted is anything more than a personal reaction. Can it be found elsewhere? Are other definitions substantially identical, or at least consistent, with it?

I am glad to answer this question, or, rather, to bring forward an answer that other men have made. It is interesting and inspiring. Without explicitly telling us so the founders of sociology have, in fact, it would seem, without exception conceived of the

science of society as a systematic study of the increase and distribution of human adequacy to exist and achieve.

How otherwise can we interpret Comte's major contention that social dynamics is an account of the advance, or progress, that mankind has made from theological through metaphysical to positive thinking, and that positive thinking has put him in command of his destiny? How otherwise can we interpret Spencer's insistence that mankind has begun to go right after having tried all the possible ways of going wrong, chief of which has been militarism, which has selected authority-revering types of character; and that only under a voluntaristic, cooperative industrialism, which selects peace-loving and self-reliant natures, can our race become humane; inasmuch as, until then, we shall not be able to educe golden conduct from leaden human natures. Certainly no other interpretation can be put upon Lester F. Ward's *Dynamic Sociology* as it is expounded in the volumes bearing that title and in later writings. Its thesis is that society not only grows but also is made, consciously and for a purpose. It is a product of telic effort. And to what end is it made? What is the purpose? I do not know that Ward anywhere uses the word, but he unmistakably identifies and describes the thing; society is made to the end that it may produce human adequacy, and, above all, increase the ratio of adequate individuals to the inadequate. Therefore, he contends, it is the supreme duty of society to disseminate existing knowledge and to educate everybody. Finally (and I say finally because I limit my survey to four writers, one French, one English, and two American who are no longer living), no other interpretation can be put upon the teaching of William Graham Sumner whom, now that he is gone, we are beginning to recognize as perhaps the most consistently sociological if not the greatest of sociologists. In folkways Sumner finds the most characteristic of social reactions and products. They are the primary mechanism of pluralistic control and adjustment. The state is a secondary and far more artificial mechanism. The folkways mediate between individual impulse and the conditions to which life must adapt itself. They discipline the individual and hold him to his obligations. He in turn reacts upon them by innovating experiment and occasional rebellion. Products of trial and error, by trial

and error they are changed. In such ceaseless conflict between individual impulse and pluralistic habit individual adequacy discovers itself and is discovered. It is tried and tempered. The unsuccessful innovator is eliminated. His idea may have been true and valuable but "untimely born" or ineffectively presented. The successful innovator survives, and with him adequacy.

If, looking further, we could compare all known systems of sociology, we should discover, I am confident, that their fundamental agreement lies precisely in this matter, namely, that, like their ancient prototypes *The Republic* of Plato and *The Politics* of Aristotle, they view society as functioning to produce human adequacy. Their disagreements arise out of their differing assumptions as to means or method. Systems that have taken for granted a Lamarkian biology have laid emphasis on environment and education. Systems that have anticipated or accepted a later biology (built upon facts of mutation and predictable heredity) lay emphasis on a social selection that is continuous with natural selection and supplementary to it. At the present moment sociology like psychology is quietly abandoning errors that it took over from a biology now discredited. We are beginning to discriminate between heredity, a physiological transmission of traits to offspring, and heritage, a sum total of knowledge, pattern, technique, and property handed on by teaching and surrender, and we shall cease to confuse habits, which each generation must acquire, with original or instinctive nature which is the equipment that we are born with. Having made these corrections, in our thinking we shall probably stop kicking against the pricks, forget that we once believed in the inheritance of acquired traits, and no longer feel obliged to deny that character and intelligence are facts of original nature, while behavior and knowledge are facts of habit. Character cannot fundamentally be made over after birth any more than bodily constitution can be, but behavior, including moral conduct, can be improved until old age just as health can be. Intelligence regarded as mental power cannot be increased after birth, but its functioning can be speeded up and knowledge can be increased indefinitely.

These elementary teachings of the new biology to which sociology will have to adapt itself, if it has not already done so, throw a

clear light upon adequacy. Plainly we now see, adequacy is partly a fact of original nature or equipment; that is to say, it is partly a fact of ability; but also, it is partly a fact of acquisition or habit; that is to say, it is partly a fact of morale.

In so factorizing adequacy we have, I now suggest, the starting-point from which certain further inquiries in sociology apparently should and probably will proceed. They will explore possibility, asking how and how far civilized communities now existing can discover, select and develop adequacy in human beings; as group dwellers to participate in the opportunities, obligations and enterprises of society, and as individuals to profit by them. In my own mind these further inquiries take form and arrangement somewhat like this:

1. What regional and circumstantial influences antecedent to society select, as elements of a local or a regional population, individuals and stocks (1) superior in point of ability, (2) mediocre, (3) inferior.

2. What circumstances and pluralistic reactions (including disciplines and selections, an inclusion which is to be understood wherever the word "reactions" appears in these paragraphs) develop (1) preference, (2) aptitude for (a) rural life, (b) village or small town life, (c) the intense life of congested urban areas?

3. What circumstances and reactions (1) prevent or hinder the amalgamation of differing stocks in a local or a regional population, (2) facilitate indiscriminate amalgamation, (3) facilitate a selective amalgamation?

4. What circumstances and reactions develop (1) preference, (2) aptitude for (a) rivalistic and competitive behavior, (b) cooperative behavior?

5. What circumstances and reactions, when inequalities of promptness, persistence and effectiveness are increasing, develop admiration for intellect and strengthen a disposition to trust intellectual ability?

6. What circumstances and reactions increase sensitiveness to interstimulation, and develop orderliness (of sequence, correlation, and coordination) of response to it?

7. What circumstances and reactions increase sensitiveness to

behavioristic differences and resemblances among individuals, among groups, among stocks, and so develop the consciousness of kind?

8. What circumstances and reactions inhibit the inferior modes of concerted volition, restraining a disposition to rely on coercive direct action taking form, for example, in the boycott and the strike, in slacking, in property-destroying sabotage, in bullying or intimidation, or in physical violence, for attaining desired ends? What circumstances and reactions develop deliberative like-mindedness?

9. What circumstances and reactions strengthen a disposition to rely on religion, education, folkways and mores more than on law and government to improve human behavior?

10. What circumstances and reactions strengthen a disposition to standardize behavior and to require conformity to standards and types? Conversely, what circumstances and reactions strengthen a love of liberty and a disposition to extend it?

11. What circumstances and reactions strengthen minority rule (1) established and maintained by the use of force, or by inspiring fear, or through protection, purchase, bribery, or bestowal of favors; (2) established and maintained by winning and holding the uncoerced and unbought approval of the majority through proof of ability, character and beneficent purpose?

12. What circumstances and reactions develop a predilection for (1) strictly monogamic relations of the sexes; (2) relations usually monogamic but with toleration or approval of (a) exceptions, (b) divorce; (3) relations of any individually preferred degree of simplicity, complexity, or variety, and of duration determined by private agreement; (4) large families, unlimited by birth control; (5) families large or small or unions childless, as determined by birth control; (6) families (or children reared by other than parental care) that are products of eugenic experimentation?

13. What circumstances and reactions develop a stronger attachment and loyalty to a local or a minor regional group (hamlet, village, small town, large town, or city, or province) than to a major regional group (nation or empire)? Conversely, what circumstances and reactions develop a stronger attachment and

loyalty to a major regional group than to any minor regional or local group?

14. What circumstances and reactions develop stronger attachments and loyalties to the town, the nation, or the empire than to occupational and class organizations? Conversely, what circumstances and reactions develop stronger attachments and loyalties to occupational and class organizations than to the empire, the nation or the town?

15. What circumstances and reactions develop a predilection for authoritative types of organization? Conversely what circumstances and reactions develop a predilection for free types of organization?

16. What circumstances and reactions develop a predilection for (1) closed organization, from which non-privileged individuals (e. g. persons not of a designated lineage, or birthplace, or not of a stipulated fortune) are excluded; (2) indiscriminately open organization (e. g. "the open shop"); (3) selectively closed or open organization (e. g. the church in which assent to a creed is demanded, the closed shop, the trade union)?

17. What circumstances and reactions develop a predilection for militarism? Conversely, what circumstances and reactions strengthen antagonism to militarism?

18. What circumstances and reactions develop a predilection for communism? Conversely, what circumstances and reactions develop a predilection for individualism?

19. What circumstances and reactions develop a predilection for (1) democratic society, (2) the democratic state?

20. What circumstances and reactions strengthen a predilection to conserve resources and to accumulate surplus? Conversely, what circumstances and reactions strengthen a predilection to squander and waste?

21. What circumstances and reactions (1) increase (a) non-hereditary variability, (b) hereditary variability; (2) diminish (a) non-hereditary variability, (b) hereditary variability?

22. What circumstances and reactions by discipline improve the morale of an increasing proportion of the population?

23. What circumstances and reactions impair morale, and if persistent destroy it?

24. What circumstances and reactions acting selectively increase (1) the absolute number, (2) the relative number, (3) both the absolute and the relative number of able men and women in the community, a standard of ability being taken, and the limits of the community being defined?

25. What circumstances and reactions (1) both increase ability and improve morale, (2) both diminish ability and impair morale?

26. Are the reactions of ability upon pluralistic behavior (a) more profound, (b) more dependable and enduring, than the reactions of morale?

27. What are the reactions upon pluralistic behavior of improved morale when there is no increase of ability?

28. What are the reactions upon pluralistic behavior of more ability, when morale is not improved?

29. How does the relative numerical increase of adequate men and women react upon the drives, the mechanisms, and the achievements of collective endeavor?

30. What measures of the phenomena that have been designated in these paragraphs can be found or devised?

If the limits of this book permitted I should be glad to present these inquiries more concretely. I must be content to indicate the concrete aspect of two of them.

Number twenty-six is the question that everybody asked when the European war began in 1914. The civilized world was stunned. It had believed that science, communication, commerce, acquaintance, humane feeling, and reasonableness had made a general war impossible. Therefore "when the thing that couldn't" had occurred we asked whether civilization was more than a veneer of habit laid upon a character of savagery. Is it more? Has it ever been more than a morale which at any moment might break down? Has it ever selected or does it now select for survival trustworthy characters and the far-seeing intelligences that can be relied on to weather political storms of envy and hate? This question has not been answered. Should we not try to find the answer?

Number twenty-nine is the question that the world at present is asking about Russia. Since prehistoric times the inadequate have said "Let George do it, we should worry," and George, accepting

the commission, has made himself a boss, a capitalist, a ruler, and exploiter. Now, the inadequate, having learned how by sabotage and violence to bully, are saying: "Make George do it. Make those who have been adequate enough to acquire wealth divide with us who have not been. Make the expert take orders from us the non-expert." Dictation by the incompetent is no more democracy, however, than monarchy is, and it tends to work out as despotism. Society is democratic only when men, saying neither "Let George do it," nor "Make George do it," say, rather, "We will do it," and proceed to make good. But this saying and this doing presuppose a diffusion or distribution of adequacy. How extensive must the distribution be? To what extent do the intellectually inferior spontaneously trust and follow, to what extent do they obstinately distrust, the intellectually superior? Can we alter the ratio, or might one as well attempt by taking thought to add a cubit to his stature? These questions have not been answered. Should we not try to find the answers?

These inquiries sharpen the distinction between sociology and economics, with which we set forth. Studies of actual or possible betterment of the conditions under which and by which people live are economic investigations in substance, if not in form. Studies of actual or possible improvement of the people themselves are sociological investigations. It would conduce to efficient co-operation between economists and sociologists, if this discrimination were made in teaching and in the organization of university departments. Studies of housing, cost of living, family budgets, wages, hours and conditions of labor, insurance, and pensions can be well taught only by economists. Studies of folkways, social pressure by taboo and bullying, social selection, organization, and morale can best be taught by sociologists. The sociologist should know his economics well enough to avoid making a fool of himself when he talks about economic problems. A more technical knowledge of the subject he does not need unless, besides being a sociologist he is also professionally an economist. As a sociologist he must be technically trained and proficient in the behavioristic psychology and in statistics; and he must keep in touch with the workers in eugenics, who inquire how the human race can be im-

proved in heredity, and with the workers in religion, in ethics, and in education, who are the technicians of morale.

How shall the further inquiries of sociology be made? What method or methods can be used and relied on?

The method must be inductive and there is only one inductive method that sociology can use. It consists of three steps. First, accurate first-hand observations must be made in great number and carefully checked up. The second-hand observation of the interviewer has been overworked; it can yield us nothing but a journalistic sociology. Second, observations must painstakingly be recorded and intelligently classified. Third, the data so obtained and prepared must be subjected to statistical analysis for the purpose of discovering ratios, modalities, coefficients of variation, and correlations.

What facts shall be observed? Not static conditions only or chiefly. The survey has its place and its value, but it can never give us the laws of social change. To discover these we must observe and analyze social experiments. Social evolution has proceeded by trial and error. Mankind has made more experiments on and in society than on or in any other medium. They have been imperfect, errant, often erratic, and there is not much ground for hope that in the future they will become scientifically more satisfactory, because the sociologist cannot, like the physicist or the biologist, isolate one factor of a situation after another either by changing it while all other factors are kept unchanged, or by keeping it unchanged while all other factors are changed. Discouraged by this difficulty Mill in his *Logic* mistakenly tells us that the social sciences cannot successfully employ induction to any great extent, and must rely on the deductive reasoning used by the classical political economy. Mill apparently knew nothing of statistical theory or practice. Happily it is often possible statistically to isolate a factor and measure its value even when, from a laboratory viewpoint experimentation has been inconclusive. Scientifically imperfect social experimentation is going on at present throughout the world. It is the duty of the sociologist to observe and analyze it.

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